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ABSTRACT

This 28th annual report summarizes results of the 1993-94 Survey of Earned Doctorates, which collected data from graduates as they completed requirements for their doctoral degrees. The survey found 41,011 doctorates (88 percent Ph.D degrees and most of the rest Ed.D.s) were awarded. Demographic highlights included: a record number (15,806) of Ph.D.s earned by women; U.S. citizens earned over two-thirds of the doctorates; most non-citizens earning the degree had temporary visas; and citizens of the People's Republic of China accounted for 21 percent of all non-U.S. Ph.D. recipients. Data are presented in 20 tables covering number of doctorates awarded, gender of recipients, citizenship status, leading countries of origins of non-U.S. citizens, leading U.S. baccalaureate and doctoral institutions of minority doctorate recipients, major doctoral field, major field of U.S. citizen doctoral recipients by race/ethnicity; median years to doctorate, primary sources of support, levels of debt, post-graduation commitments, postdoctoral location of non-U.S. citizen doctoral recipients, and employment sector of doctorate recipients. The report also analyzes trends in doctorate production including general demographic characteristics of doctorate recipients in terms of gender, citizenship, and racial/ethnic minority status; field of doctorate; time-to-degree; financial support; and post-graduation plans. Appendixes provide supplementary tables on 1994 doctorate recipients, trend data on 1984-94 doctoral cohorts, technical notes, and a copy of the survey questionnaire. (JB)

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Summary Report 1994

Doctorate Recipients from United States Universities

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Highlights

The following data are derived from the Survey of Earned Doctorates, an annual census of new doctorate recipients. These data summarize the characteristics of all recipients of research doctorates earned in the U.S. from July 1, 1993 through June 30, 1994, a period referred to hereafter as 1994.

- The number of new Ph.D.s reached a record high of 41,011 in 1994: 7,734 in life sciences; 6,821 in physical sciences; 6,683 in education; 6,624 in social sciences; 5,826 in engineering; 4,743 in humanities; and 2,580 in professional/ other fields.

- Women once again earned a record number of Ph.D.s (15,806 in 1994). Still, doctoral awards to men surpassed those to women in every broad field except education. Women were most outnumbered in the field of engineering.

- Non-U.S. citizens earned 33 percent of all doctorates awarded in 1994, including 61 percent of Ph.D.s in engineering and 46 percent in physical sciences. The majority of non-U.S. citizen Ph.D.s were from Asia. Among non-U.S. citizen Ph.D.s, those on temporary visas outnumbered those on permanent visas by two-and-a-half to one. This ratio was four to one in 1993, and would have remained the same in 1994 but for citizens of the People's Republic of China.

- Over 11 percent of the doctorates awarded to U.S. citizens in 1994 were earned by racial/ethnic minorities—Asian, Black, Hispanic and Native Americans. The fields with the largest percentages of minorities were education, in which Black Americans were the predominant minority group, and engineering, in which Asian Americans were the predominant minority.

- All U.S. minority groups have increased their numbers and proportions of new Ph.D.s since 1975. Black Americans, however, increased their numbers and proportions of new Ph.D.s only slightly since 1975 and not at all since 1993.

- Median time-to-degree was 10.8 years since the baccalaureate and 7.2 years since first enrollment in any graduate program.

- University funding (such as a teaching or research assistantship) was the primary source of support for the majority of 1994 Ph.D.s.

- Almost half (47 percent) of new Ph.D.s in 1994 reported debt related to their combined undergraduate and graduate education. The majority of those with debt reported owing more than $10,000.

- Compared to 1974, a smaller proportion of Ph.D.s in 1994 reported definite postgraduation commitments. Of those with definite commitments, a smaller proportion of Ph.D.s planned to be employed and a larger proportion planned postdoctoral study than in 1974.

Summary Report 1994

Doctorate Recipients from United States Universities

The Survey of Earned Doctorates is conducted
for the following agencies of the U.S. government:

National Science Foundation
U.S. Department of Education
National Institutes of Health
National Endowment for the Humanities
U.S. Department of Agriculture

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Delores H. Thurgood
Senior Research Associate

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NOTICE: The project that is the subject of this report was approved by the Governing Board of the National Research Council, whose members are drawn from the councils of the National Academy of Sciences, the National Academy of Engineering, and the Institute of Medicine. The survey project is part of the program of the Office of Scientific and Engineering Personnel (OSEP).

This report has been reviewed by a group of persons other than the authors according to procedures approved by a Report Review Committee consisting of members of the National Academy of Sciences, the National Academy of Engineering, and the Institute of Medicine.

The National Academy of Sciences is a private, nonprofit, self-perpetuating society of distinguished scholars engaged in scientific and engineering research, dedicated to the furtherance of science and technology and to their use for the general welfare. Under authority of the charter granted by Congress in 1863, the Academy has a mandate that requires it to advise the federal government on scientific and technical matters. Dr. Bruce M. Alberts is president of the National Academy of Sciences.

The National Academy of Engineering was established in 1964, under the charter of the National Academy of Sciences, as a parallel organization of outstanding engineers. It is autonomous in its administration and in the selection of its members, sharing with the National Academy of Sciences the responsibility for advising the federal government. The National Academy of Engineering sponsors engineering programs aimed at meeting national needs, encourages education and research, and recognizes the superior achievements of engineers. Dr. Harold Liebowitz is the president of the National Academy of Engineering.

The Institute of Medicine was established in 1970 by the National Academy of Sciences to secure the services of eminent members of appropriate professions in the examination of policy matters pertaining to the health of the public. The Institute acts under the responsibility given to the National Academy of Sciences by its congressional charter to be an adviser to the federal government and, upon its own initiative, to identify issues of medical care, areas of research, and topics for education. Dr. Kenneth I. Shine is president of the Institute of Medicine.

The National Research Council (NRC) was organized by the National Academy of Sciences in 1916 to associate the broad community of science and technology with the Academy's purposes of furthering knowledge and of advising the federal government. Functioning in accordance with general policies determined by the Academy, the Council has become the principal operating agency of both the National Academy of Sciences and the National Academy of Engineering in providing services to the government, the public, and the scientific and engineering communities. The Council is administered jointly by both Academies and the Institute of Medicine. Dr. Bruce M. Alberts and Dr. Harold Liebowitz are the chairman and vice-chairman, respectively, of the National Research Council.

This report is based on research conducted by OSEP with the support of the National Science Foundation (NSF), the National Institutes of Health (NIH), the National Endowment for the Humanities (NEH), the U.S. Department of Education (U.S. Dept. of Ed.), and the U.S. Department of Agriculture (USDA) under NSF Contract No. SRS-9309720. Opinions, findings, conclusions, or recommendations expressed in this publication are those of OSEP and do not necessarily reflect the views of the sponsoring agencies.

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PREFACE AND ACKNOWLEDGMENTS

This report presents a summary of the results of the 1993-94 Survey of Earned Doctorates (SED), which has been conducted each year since 1958 by the National Research Council's (NRC's) Office of Scientific and Engineering Personnel (OSEP) and its predecessor organizations. Questionnaires, distributed with the cooperation of the graduate deans of U.S. universities, are filled in by graduates as they complete requirements for their doctoral degrees. The doctorates are reported by academic year (from July 1 of one year through June 30 of the following year) and include *research* and *applied-research doctorates* in all fields.[1] Doctoral degrees such as the Ph.D., D.Sc., and Ed.D. are covered by this survey; professional degrees (e.g., M.D., D.D.S., J.D., Psy.D.) are not covered. A full list of included degrees can be found inside the back cover. For convenience throughout this report, "Ph.D." is used to represent any of the doctoral degrees covered by the survey.

This *Summary Report* is the 28th in an annual series of reports that began in 1967.[2] All survey responses become part of the Doctorate Records File (DRF), a virtually complete database on doctorate recipients from 1920 to 1994. Almost 89 percent of the 1,144,206 records now in the DRF were created from results of the 1958-1994 surveys. For doctorates granted during the 1920-1957 period, information was compiled from commencement bulletins, registrars' records, and other published material.

The conduct of the SED, the maintenance of the resulting data file, and the publication of this report are funded jointly by the National Science Foundation (NSF), the National Institutes of Health (NIH), the National Endowment for the Humanities (NEH), the U.S. Department of Education (U.S. Dept. of Ed.), and the U.S. Department of Agriculture (USDA). The survey's relevance to national policy issues has increased, thanks to constructive reviews of the design and analysis of the survey by David Chananie (NIH), Nancy Schantz (U.S. Dept. of Ed.), Jay Jackman (USDA), Jeffrey Thomas and Julie Myers (NEH), and Mary Golladay and Susan Hill (NSF). Susan Hill (NSF) also serves as the project officer for the five sponsoring agencies. We would also like to acknowledge the graduate deans and their assistants in the doctorate-granting institutions for their interest and assistance. It is through their cooperation that

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[1] The Survey of Earned Doctorates collects information on *research* doctorates only. This differs from the institutional collection of numbers of degrees that is done by the U.S. Department of Education on *all* doctorates. For an evaluation of the differences, see: National Science Foundation. 1993. *Science and Engineering Doctorates 1960-1991*. NSF 93-301. Detailed Statistical Tables. Washington, D.C. Pp. 2-6.

[2] Trend data from earlier periods can be found in Harmon, Lindsey R. 1978. *A Century of Doctorates: Data Analysis of Growth and Change*. Washington, D.C. National Academy of Sciences.

the DRF continues to serve as a useful resource for monitoring developments in graduate education in the country. Finally, we would like to thank all of the doctorate recipients who have completed the SED over the years.

The 1993-94 Survey of Earned Doctorates was conducted under the administrative supervision of Paula Ries. Robert Simmons collaborated with Delores Thurgood on the development of this year's report. Dr. Simmons analyzed the survey results and drafted all text in the body of the report. Dr. Simmons and Ms. Thurgood supervised the production of the figures. Ms. Thurgood drafted the technical notes and supervised the production of the tables. Ms. Thurgood, Julie Clarke, and George Orvis generated the data from the Doctorate Records File. Ms. Clarke and Martha Bohman prepared the final tables and figures for the report. Ms. Thurgood, Ms. Clarke, and Ms. Bohman reviewed the manuscript for accuracy.

Special appreciation is also expressed to the following people: Eileen Milner, manager of the unit responsible for collecting and processing the survey forms; John Hines, coding supervisor and institutional liaison; Gedamu Abraha and Daniel Fulwiler, coordinators of the follow-up effort; Joyce Hendrickson, Kevin Williams, Amy Dowd, and Barbara Schreiber, full-time coders; and the many hourly coders who contributed to the survey's processing. Special thanks are also expressed to Maren Herman, Joseph Finan, Cynthia Woods, George Boyce, and Daniel Fulwiler for their service on application development, project programming, database management, and computer operations.

The work of this project was overseen by the Advisory Committee of the Office of Scientific and Engineering Personnel, which is concerned with those activities of the NRC that contribute to the effective development and utilization of the nation's scholars and research personnel. In addition, an advisory panel made recommendations on the improvement of this important survey. Alan E. Fechter, Executive Director of OSEP, and Marilyn Baker, Associate Executive Director, also provided helpful guidance. Suggestions for improvement of the content or format of the report, other comments, and questions are welcome and may be directed to the authors of this report.

Linda Wilson, Chair
Office of Scientific and Engineering Personnel
Advisory Committee

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INTRODUCTION

Summary Report 1994 is the 28th in a series of reports on research doctorates awarded by U.S. colleges and universities. Like its predecessors, this report presents trends in doctorate production in the United States, describing the general demographic characteristics of doctorate recipients and the seven broad fields in which they earned their degrees. Each of the seven broad fields consists of several "major" fields (e.g., biological sciences is a major field within the broad field of life sciences, and psychology is a major field within the broad field of social sciences). The doctorate recipients themselves report their field of study and are counted accordingly. For a list of the fields discussed in this report, see the inside back cover and the specialties list in Appendix D. (Note: These field groupings may differ from those used by federal sponsors of the survey.)

The front section of *Summary Report 1994* presents brief narratives of key survey findings, accompanied by figures showing selected trend data. The numbers and percentages from which the figures were drawn are provided in a set of tables following the front section; relevant tables are referenced at the bottom of the figures. The front section also includes major findings from data presented in tables but not in figures.

Although similar in content to last year's report, *Summary Report 1994* presents additional data on citizenship, offers more sophisticated analyses of differences among demographic groups, and uses months as well as years to calculate medians.

Supplementary tables on 1994 doctorate recipients are displayed in Appendix A, and trend data on the 1984-1994 Ph.D. cohorts are presented in Appendix B. Appendix C provides technical notes that include nonresponse rates and other information related to tables and figures in the body of the report. Appendix D contains a copy of the survey questionnaire.

Additional information is available from the Doctorate Records Project upon request. For a cost, the Project offers tables on the baccalaureate origins of Ph.D.s by major field of doctorate and tables on the doctoral specialties of Ph.D.s by citizenship, race/ethnicity, and gender. Customized tables can also be prepared at cost. For more information, please contact:

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*** IMPORTANT NOTICE ***

The estimates reported for the Survey of Earned Doctorates (SED) are simple tabulations of all available information with no adjustment for nonresponse. Therefore, differences in response rates from year to year can produce numerical fluctuations that are unrelated to real trends.

Although response to the SED has been 95 to 98 percent in most years, it declined to 92 percent during the 1980s. In an effort to improve the response rate, the survey methodology was modified in the years after 1989. Response has risen as hoped, stabilizing around 95 percent during the last four years (1991 to 1994). (Note: These percentages represent *self-report rates*, i.e., the proportion of questionnaires completed by doctorate recipients. While survey forms containing partial information filled in by either the doctoral institution or staff of the National Research Council are not included in these rates, tables in this report incorporate the available data from these forms.) The self-report rate for 1994 may increase slightly in the next year if additional questionnaires are received from doctorate recipients. See page 82 in Appendix C for a table giving survey response rates from 1964 to 1994.

Item response rates have shown a parallel improvement since 1990—a natural consequence of the increase in the overall self-report rate, as well as a result of format revisions to the questionnaire and follow-ups for missing information. In 1990, new follow-up procedures were implemented to increase coverage of several variables: birth year, gender, race/ethnicity, citizenship status, country of citizenship, baccalaureate year and institution, and postgraduation plans. Response rates for these variables have since improved—especially for citizenship and race/ethnicity, resulting in an increase in the reported numbers of minority Ph.D.s. The data for a given year are updated the following year with any responses received *after* survey closure. Postsurvey adjustment was most significant for 1990 and 1991 Ph.D.s, with the largest impact on the number of blacks. For both of these years, the total number of black Ph.D.s increased by about 7.5 percent in the year after survey closure. The survey cycle was then extended to allow receipt of more follow-up information before closure, resulting in much smaller postsurvey adjustments for both 1992 and 1993 data (a 1.4 percent increase in black Ph.D.s for 1992 and only a 0.2 percent increase for 1993). The same is expected for 1994 data.

Adjustments to data are presented in reports subsequent to the initial report for a survey. Updates for 1992 appeared in *Summary Report 1993*, and those for 1993 are included in this year's report (see Appendix Table B-2 for adjustments to racial/ethnic data). The data for 1994 will likewise be subject to further revision, but as for the last two years, adjustments are expected to be minimal. Updates to 1994 data will be presented in next year's report.

In using SED data, the reader should keep in mind that numerical trends are affected by fluctuations in response rates. Increasing or decreasing numbers in a citizenship or racial/ethnic group reflect to some degree any change in both overall survey response and item response.

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TRENDS IN DOCTORATE RECIPIENTS

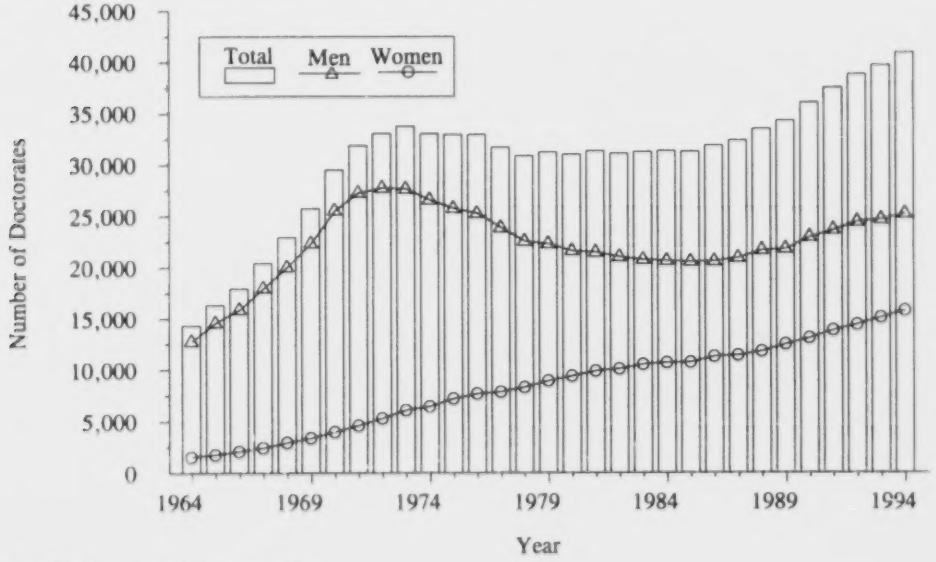
Selected Demographic Characteristics

The number of new Ph.D.s increased to an all-time high of 41,011 in 1994. This record continues the upward trend in doctoral attainment that started in 1986 after a period of stagnation during the late 1970s and early 1980s. The doctorates awarded in 1994 were granted by 372 colleges and universities in the United States and Puerto Rico. "Ph.D." is used throughout this report to refer not just to the Doctor of Philosophy degree—and recipients of this degree—but also to any of the other doctoral degrees covered by the survey. Over 88 percent of the degrees earned in 1994 actually were the Doctor of Philosophy. More than two-thirds of the remaining degrees were Ed.D.s or other doctorates in education. A full list of included degrees can be found inside the back cover.

- Women once again earned a record number of Ph.D.s (15,806 in 1994), while men still fell short of their record number of doctorates in 1972 (25,205 in 1994 compared to 27,754 in 1972).

- While the number of male Ph.D.s in 1994 roughly doubled from 12,764 in 1964, the number of female Ph.D.s in 1994 increased more than ten-fold from 1,561 in 1964. Women's representation jumped from 11 percent in 1964 to an all-time high of 39 percent in 1994.

FIGURE 1 Doctorate recipients, total and by gender, 1964-1994.



See Tables 1 and 2, page 21.

SOURCE: National Research Council, Survey of Earned Doctorates.

U.S. citizens earned over two-thirds of the doctorates awarded to those with known citizenship in 1994. (See Appendix Table B-2, page 78.) The 27,105 doctorates awarded to U.S. citizens is the highest such number since 1976 (27,269) and continues a recovery that began in 1988. Nevertheless, the share of doctorates awarded to non-U.S. citizens has increased steadily over the last 30 years, rising from less than 14 percent (1,931 Ph.D.s) in 1964 to almost 33 percent (13,134 Ph.D.s) in 1994.

- In 1994, non-U.S. citizen Ph.D.s on temporary visas outnumbered those on permanent visas by about two-and-a-half to one: 9,393 compared to 3,741. Temporary residents earned 23 percent of all Ph.D.s; permanent residents earned 9 percent. In 1993, the temporary-to-permanent ratio was four to one. (Note: Temporary residents are nonimmigrants who are granted visas for a specified temporary period. Permanent residents are immigrants who are granted permanent legal U.S. residence.)

- For the second consecutive year, the number of doctorates earned by temporary residents declined: from 9,921 Ph.D.s in 1993 to 9,323 Ph.D.s in 1994. The 23 percent share of Ph.D.s earned by temporary residents in 1994 is down from 26 percent in 1993, but is still much higher than their 10 percent share of Ph.D.s in 1964.

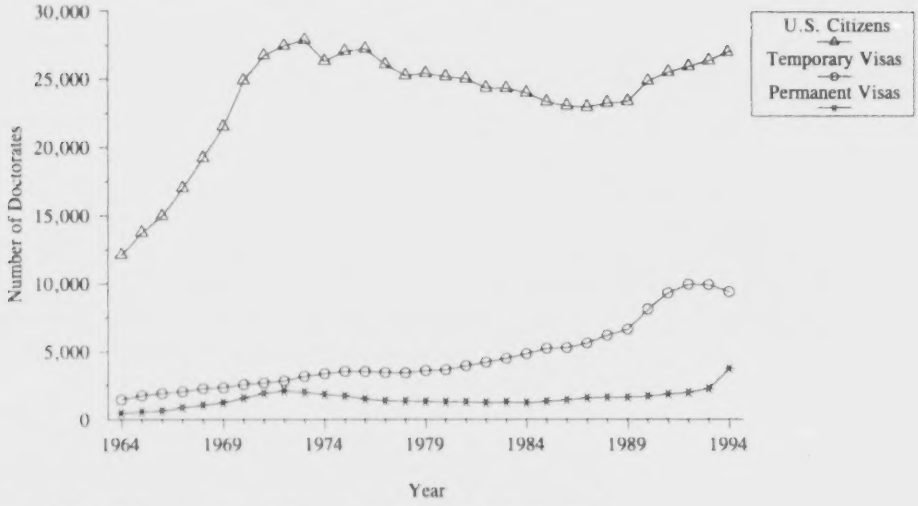
- Permanent residents surged from less than six percent of Ph.D.s in 1993 to over nine percent of Ph.D.s in 1994. Their 3,741 degrees in 1994 shattered 1993's record high of 2,254. (See Appendix Table B-2, page 78.)

- The four-to-one ratio of temporary to permanent residents' doctorates in 1993 would have been unchanged in 1994 but for citizens of the People's Republic of China (PRC). (See Table 4, page 23.) This can be explained by particular consequences of the 1989 Tiananmen Square massacre, an event widely reported to have given many temporary residents from the PRC the incentive to try to become eligible for permanent visas. The ratio of the numbers of doctorates earned by temporary and permanent residents began to change among PRC citizens in 1991. The change among PRC citizens, almost imperceptible at first, was large enough by 1993 to cause the first decline in 15 years in the number of doctorates earned by temporary residents overall. This process was then accelerated by the Chinese Student Protection Act of 1992, which made thousands of PRC citizens in the U.S. eligible to apply for permanent residency on July 1, 1993. Since this happened to be the date defined by this survey as the beginning of the 1994 academic year, the effect of this law on the 1994 figures was dramatic.

- Citizens of the People's Republic of China accounted for over a fifth (21 percent) of all non-U.S. Ph.D. recipients in 1994. (See Table 5, page 23.) Another third originated from three other Asian countries: Taiwan (12 percent), the Republic of Korea (11 percent), and India (10 percent).

- Among the leading countries of origin of non-U.S. Ph.D. recipients, Japan rose from tenth place in 1993 to seventh in 1994, accounting for almost two percent of non-U.S. doctorates. Lebanon entered the top 30, replacing the Netherlands.

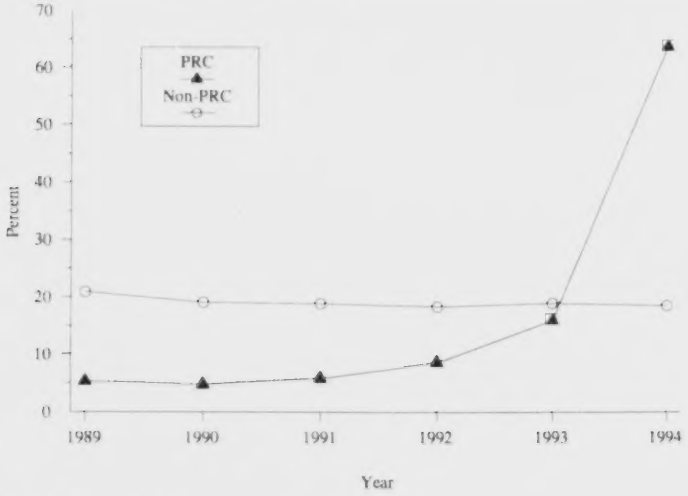
FIGURE 2 Doctorate recipients, by citizenship, 1964-1994.



See Table 3 (page 22) and Appendix Table B-2 (page 78).
See technical notes in Appendix C for rates of nonresponse to the question on citizenship status.

SOURCE: National Research Council, Survey of Earned Doctorates.

FIGURE 3 Percentage of Ph.D.s who are permanent residents, by country of citizenship, 1989-1994.



See Table 4, page 23.
See technical notes in Appendix C for rates of nonresponse to the questions on citizenship status and country.

SOURCE: National Research Council, Survey of Earned Doctorates.

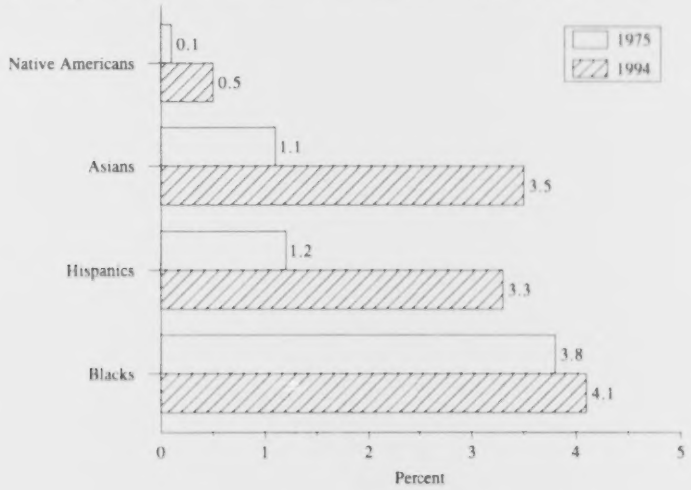
Over 11 percent of the doctorates awarded to U.S. citizens in 1994 were earned by racial/ethnic minorities—Asian, Black, Hispanic and Native Americans. The minority share of these doctorates has increased by over five percentage points since 1975, and by almost two-tenths of a point since 1993.

- All U.S. minority groups have increased their numbers and proportions of Ph.D.s since 1975. Asian and Hispanic Americans roughly tripled their proportions, and the proportion of Native Americans earning doctorates increased even more sharply. These three groups also increased their shares of new doctorates from 1993 to 1994. (See Appendix Table B-2, page 78.)

- Black Americans decreased their share of Ph.D.s from 4.2 percent in 1993 to 4.1 percent in 1994 and also received fewer doctorates in 1994 than a year earlier (1,092 degrees compared to 1,107 in 1993). The 1,092 doctoral awards in 1994 did top the 998 Ph.D.s earned by blacks in 1975. Blacks' 4.1 percent share of doctorates in 1994 was higher than in 1975 (3.8 percent) but lower than in the peak year of 1977 (4.4 percent).

- Of the 20 institutions awarding the most baccalaureates to Black Americans who later received Ph.D.s between 1990 and 1994, 15 are Historically Black Colleges and Universities (HBCUs). (See Table 6, page 24.) Three HBCUs are also among the 20 institutions awarding the most Ph.D.s to Black Americans. (See Table 7, page 25.)

FIGURE 4 Percentage of doctorates earned by U.S. minorities, 1975 and 1994.



NOTE: Percentages are based on the number of U.S. citizen Ph.D.s with known race/ethnicity. The category of "Native Americans" includes American Indians and Alaskan Natives. The category "Asians" includes Pacific Islanders.

See Appendix Table B-2, page 78.
See technical notes in Appendix C for rates of nonresponse to citizenship and race/ethnicity.

SOURCE: National Research Council, Survey of Earned Doctorates.

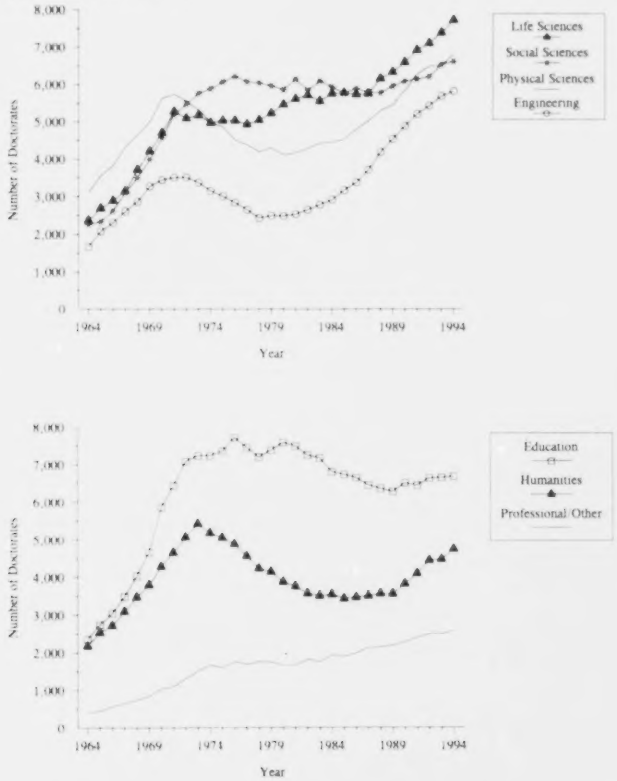
Field of Doctorate

Of the seven broad fields of study profiled in this report, life sciences had the largest number of Ph.D.s—7,734 in 1994. (See Table 2, page 21.)

- Within science and engineering, all broad fields reached new highs. Following life sciences was the field of physical sciences (6,821 Ph.D.s), which outnumbered social sciences (6,624 Ph.D.s) and engineering (5,826 Ph.D.s). Social science Ph.D.s had outnumbered physical science Ph.D.s in 1993, and social sciences outnumbered all three of these other broad fields every year but one from 1973 through 1987.

- Among the nonscience fields in 1994, education continued to outstrip humanities and professional/other fields, producing 6,683 Ph.D.s, compared to 4,743 in humanities and 2,580 in professional/other fields. However, the number of doctorates in humanities reached its highest level since 1976, and professional/other fields was the only broad nonscience field to break its previous record number of doctorates.

FIGURE 5 Field of doctorate, 1964-1994.



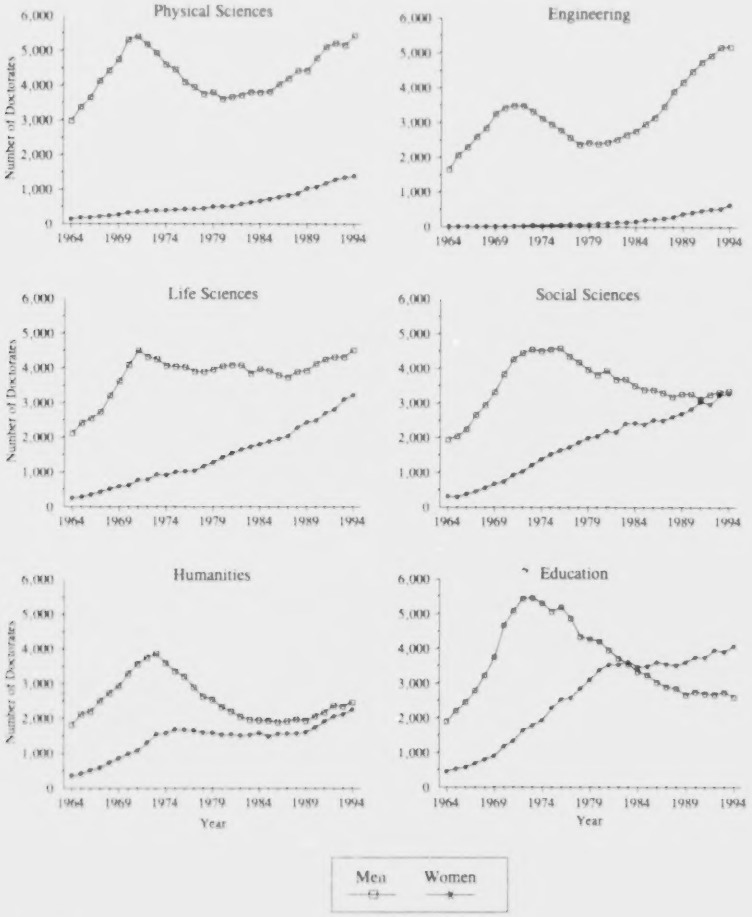
See Tables 2 (page 21), 3 (page 22) or 8 (page 26); and Appendix Table B-1, pages 74-77.

SOURCE: National Research Council, Survey of Earned Doctorates.

In 1994, doctoral awards to men surpassed those to women in all but one broad field—education. Women predominated in the field of education with 61 percent of all doctorates and were near parity in social sciences and humanities. However, women remained substantially outnumbered in the fields of life sciences (42 percent of Ph.D.s), physical sciences (20 percent), and engineering (11 percent).

- Although women Ph.D.s increased in every broad field over the last 30 years, men experienced major declines after the early 1970s in social sciences, humanities, and education. While men's numbers in social sciences have stabilized in recent years, and their numbers in humanities have slowly risen, their decline in the field of education has continued. The number of education doctorates awarded to men in 1994 was less than half the number in 1974.

FIGURE 6 Field of doctorate, by gender of doctorate recipients, 1964-1994.



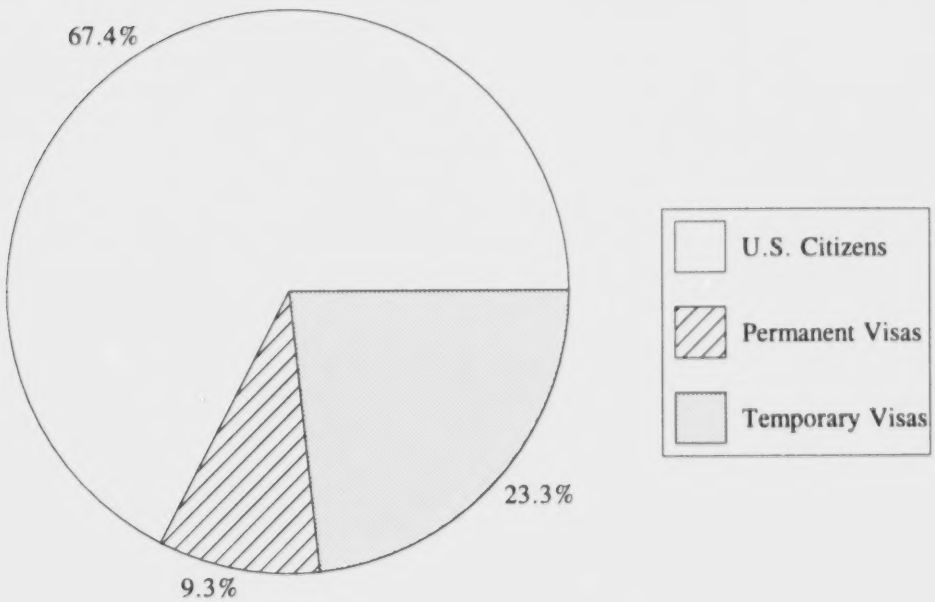
See Table 2, page 21.

SOURCE: National Research Council, Survey of Earned Doctorates.

Non-U.S. citizens earned 33 percent of all doctorates awarded in 1994. Fields varied in their proportions of non-U.S. citizens—ranging from 61 percent of Ph.D.s in engineering and 46 percent in physical sciences, to just 11 percent in education. U.S. citizens received more than three-quarters of the doctorates awarded in social sciences, humanities, and education.

- Temporary residents earned their greatest number of doctorates in engineering (2,656), followed by physical sciences (2,085) and life sciences (1,829); permanent residents were most concentrated in physical sciences (964), followed by life sciences (873) and engineering (839). U.S. citizens most frequently selected education (5,842), although their numbers in social sciences (4,998) and life sciences (4,947) were also large.

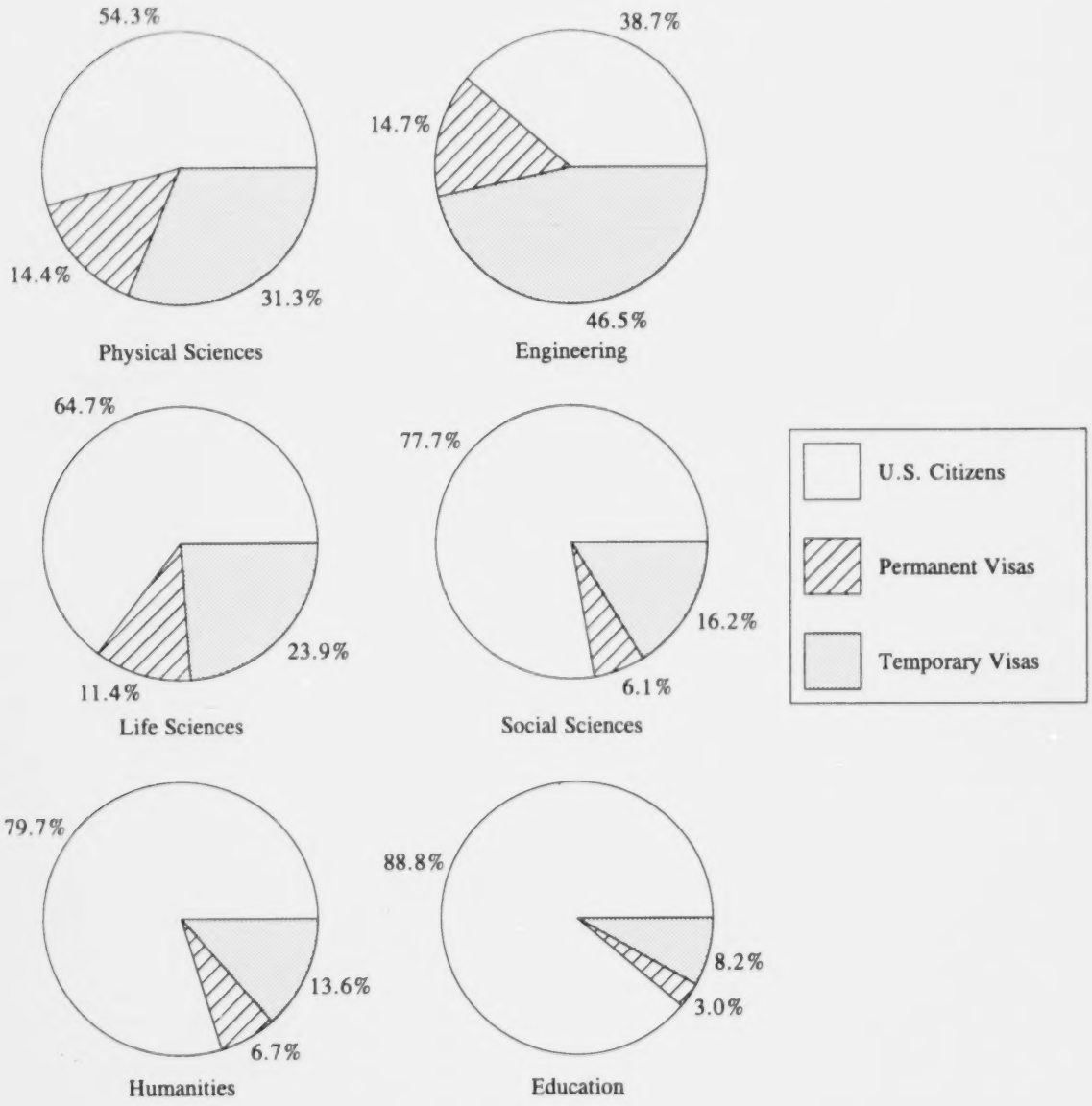
FIGURE 7a Citizenship status of doctorate recipients in all fields, 1994.



See Table 3, page 22.
See technical notes in Appendix C for rates of nonresponse to the question on citizenship status.

SOURCE: National Research Council, Survey of Earned Doctorates.

FIGURE 7b Citizenship status of doctorate recipients, by broad field, 1994.



See Table 3, page 22.
See technical notes in Appendix C for rates of nonresponse to the question on citizenship status.

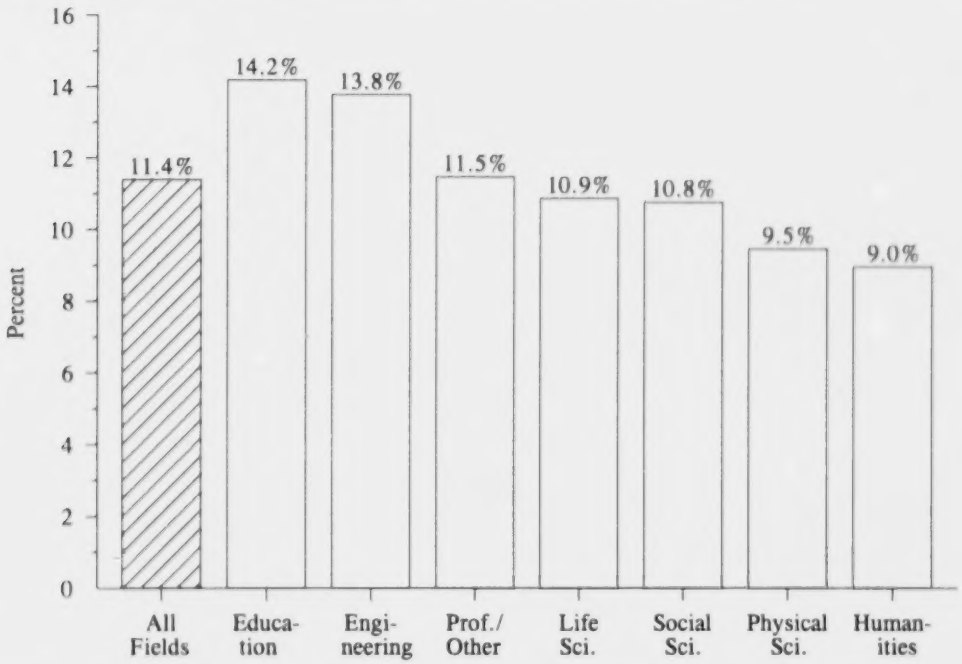
SOURCE: National Research Council, Survey of Earned Doctorates.

Racial/ethnic minorities received over 11 percent of all doctorates awarded to U.S. citizens in 1994. As a group, they accounted for 14 percent of the doctorates in education and engineering and 9 to 12 percent in each of the other broad fields.

- Black Americans received more than half of the doctorates awarded to minorities in the field of education in 1994; they were also the predominant minority recipients of degrees in social sciences and professional/other fields. Asian Americans accounted for well over half of minority Ph.D.s in engineering and physical sciences and also earned more doctorates in life sciences than any other minority group. Hispanic Americans were the predominant minority group receiving doctorates in humanities. (See Table 9, page 27.)

- Black, Hispanic, and Native Americans in 1994 earned their greatest numbers of doctorates in the field of education, followed by social sciences. Life sciences and engineering were the leading fields among Asian Americans.

FIGURE 8 Percentage of Ph.D.s awarded to U.S. minorities, by broad field, 1994.



NOTE: Percentages are based on the total number of U.S. citizen Ph.D.s whose race/ethnicity is known. Minorities include Asian, Black, Hispanic, and Native Americans.

See Table 9, page 27.
See technical notes in Appendix C for rates of nonresponse to the questions on citizenship and race/ethnicity.

SOURCE: National Research Council, Survey of Earned Doctorates.

Time-to-Degree

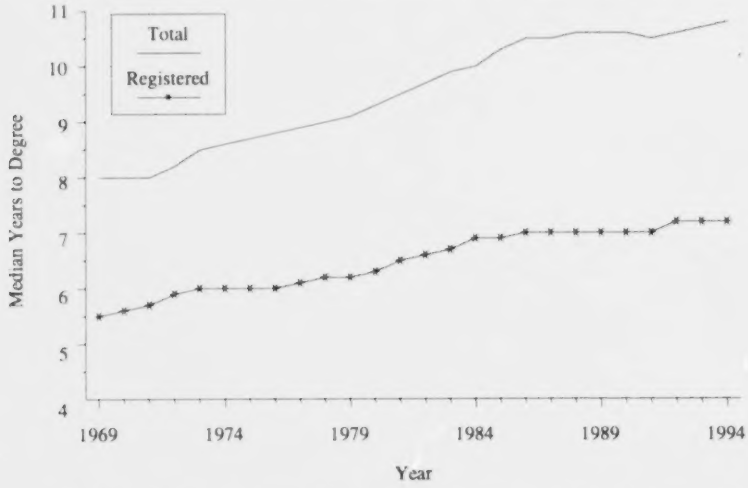
Total time-to-degree (TTD) measures the number of years elapsed between receipt of the baccalaureate and the Ph.D. Registered time-to-degree (RTD) gauges the amount of time actually enrolled in graduate school; RTD includes master's degrees, enrollment in nondegree programs, and time spent working on the dissertation.

- Median TTD has increased steadily since 1991 from 10.5 years to 10.8 years, nearly three years longer than the medians for 1969 to 1971 (8.0 years). Median RTD has been stable at 7.2 years since 1992, after growing to that level from 5.5 years in 1969. (See Table 10, page 28.)

- Both TTD and RTD varied considerably by field. In 1994, doctorate recipients in education had the longest median TTD (19.7 years), while those in physical sciences had the shortest median TTD (8.5 years). The longest median RTD was in the humanities (8.5 years), and the shortest median RTD was in engineering (6.4 years).

- Time-to-degree was longer for women than for men, but this difference often disappeared within the same broad field. (See Table 11, page 29.) Black Americans had the longest time-to-degree of all U.S. racial/ethnic groups, largely because their highest percentage of degrees was in the field of education. Both permanent residents and U.S. citizens exhibited longer time-to-degree than did temporary residents.

FIGURE 9 Median years to doctorate from baccalaureate award, 1969-1994.

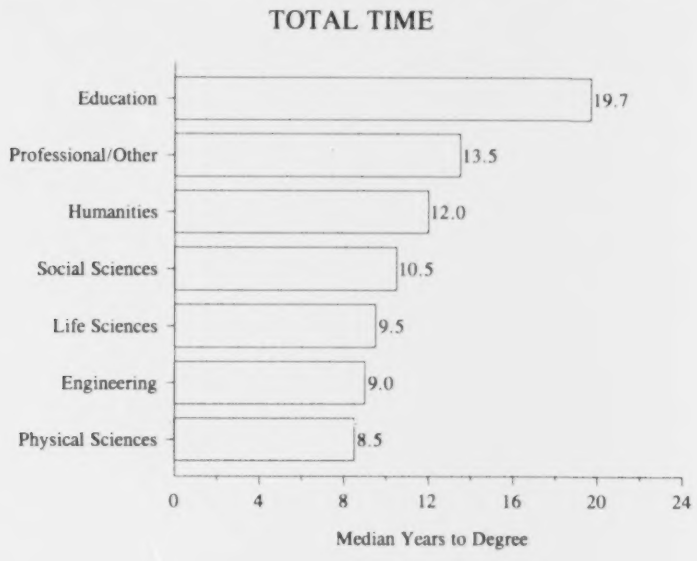


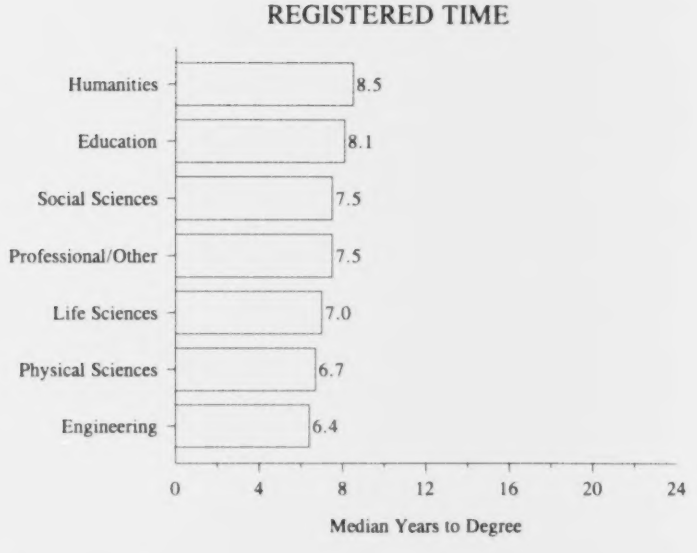
NOTE: The method of median computation has been revised since last year. See technical notes in Appendix C for explanation of the revision (page 89) and also for rates of nonresponse to the applicable questions (pages 84-85).

See Tables 10 and 11, pages 28 and 29.

SOURCE: National Research Council, Survey of Earned Doctorates.

FIGURE 10 Median years to doctorate from baccalaureate award, by broad field, 1994.





NOTE: The method of median computation has been revised since last year. See technical notes in Appendix C for explanation of the revision (page 89) and also for rates of nonresponse to the applicable questions (pages 84-85).

See Tables 10 and 11, pages 28 and 29.

SOURCE: National Research Council, Survey of Earned Doctorates.

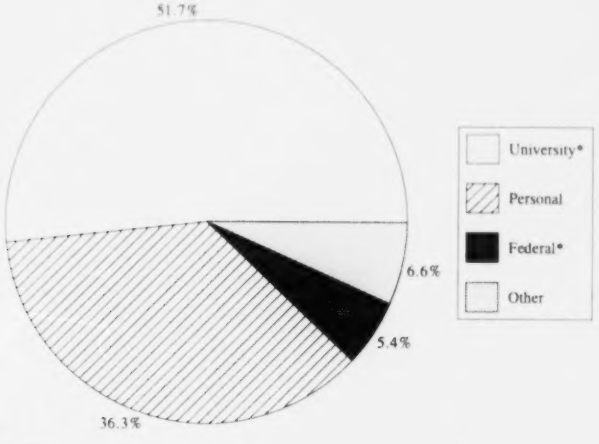
Financial Support

As in the previous three years, university funding (mostly via teaching and research assistantships) was the primary source of graduate school support for the majority of 1994 Ph.D.s (52 percent). (See Table 12, page 30.) Another 36 percent of Ph.D.s were primarily supported by personal resources (own earnings; family contributions; loans) and the remaining 12 percent by other resources (federal or state governments; nonfederal competitive fellowships; businesses/employers).

- The type of primary support varied greatly by field. University sources were most common in the physical and life sciences and in engineering (reported by well over half of recipients). Personal resources were easily the most typical in education (reported by 79 percent of recipients).

- Male Ph.D. recipients were primarily supported by their university; female Ph.D. recipients relied primarily on personal resources. Over two-thirds of non-U.S. citizens reported university support as their primary source of financing, whereas U.S. citizens were somewhat more apt to be supported by personal than by university resources. In most U.S. racial/ethnic groups, the largest proportion of Ph.D.s also indicated personal funds as their primary source of financial support; however, university funding was the chief means of support for more than half of Asian Americans. These differences were due in large part to the field concentrations of the various demographic groups. Even within most fields, however, university funding was more likely to be the primary means of support for Asian Americans than it was for Black and Hispanic Americans.

FIGURE 11a Primary sources of financial support for doctorate recipients, all fields, 1994.

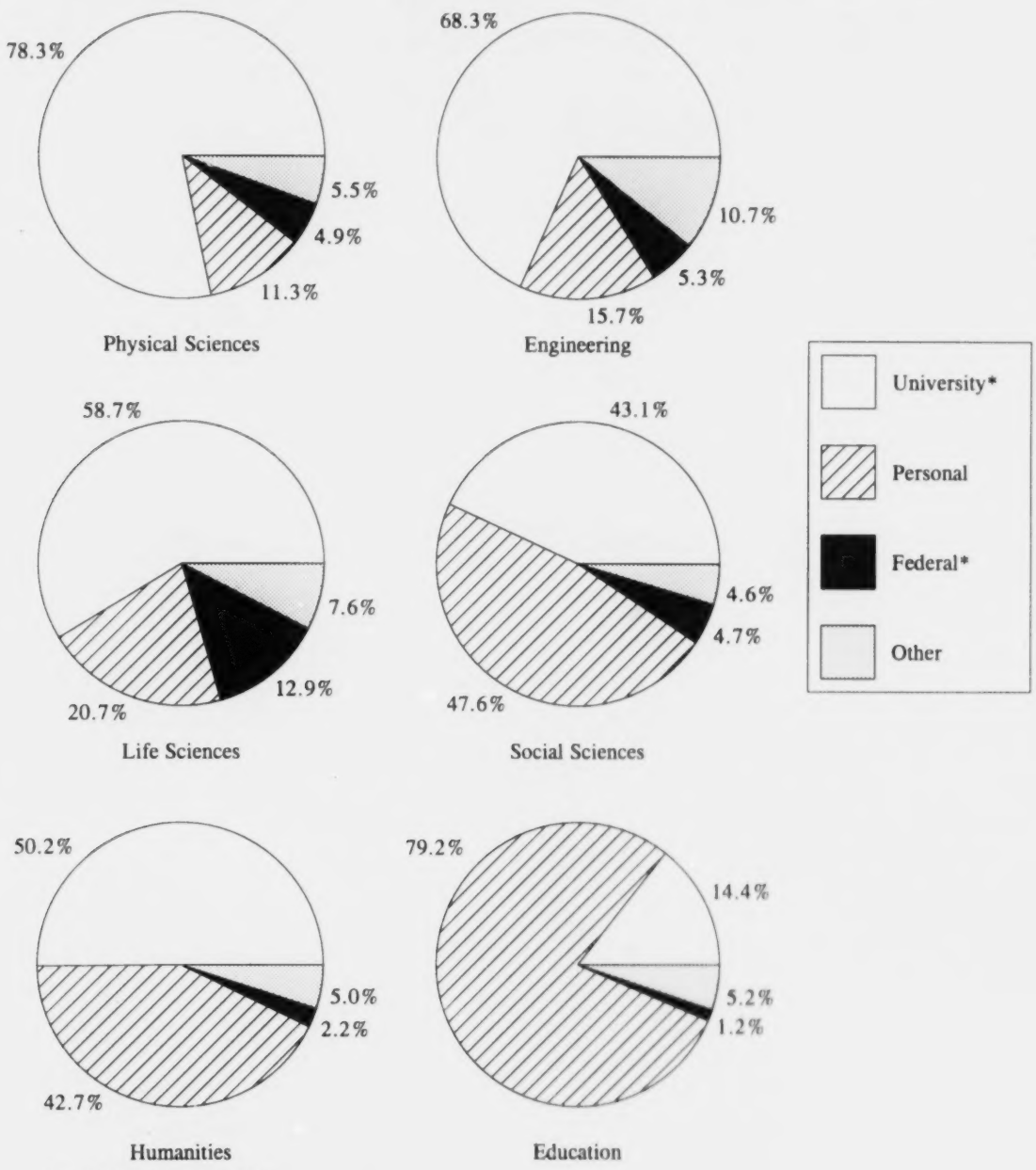


See Table 12, page 30.
See technical notes in Appendix C for rates of nonresponse to this question.

*Research assistantships funded by the federal government are counted as university support.

SOURCE: National Research Council, Survey of Earned Doctorates.

FIGURE 11b Primary sources of financial support for doctorate recipients, by broad field, 1994.



See Table 12, page 30.

See technical notes in Appendix C for rates of nonresponse to this question.

*Research assistantships funded by the federal government are counted as university support.

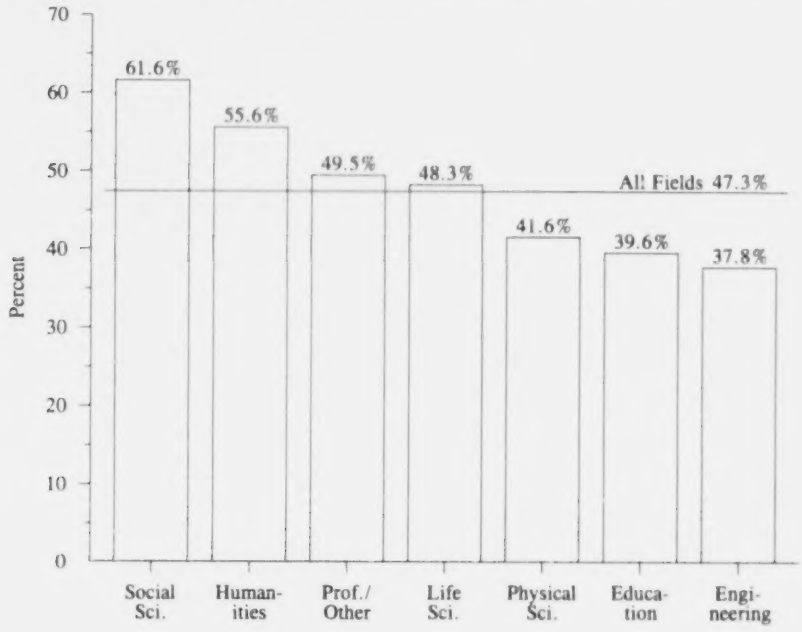
SOURCE: National Research Council, Survey of Earned Doctorates.

Almost half (47 percent) of all Ph.D.s in 1994 reported debt related to their combined undergraduate and graduate education. The majority of those with debt reported owing more than $10,000.

- Doctorate recipients in engineering were the least likely to have incurred educational debt (38 percent), while those in social sciences were the most likely (62 percent). Indebted social scientists also owed the most money: over three-fifths of social science Ph.D.s with debt owed more than $10,000, and over one-fifth owed more than $30,000. In contrast, more than half of the indebted Ph.D.s in both the life sciences and the physical sciences owed $10,000 or less. (See Table 13, page 31.)

- Men and women reported debt in equal proportions and had about the same levels of debt. Non-U.S. citizens were much less likely to have incurred debt than U.S. citizens, the majority of whom were indebted. Temporary residents were more likely than permanent residents to report debt and to report a very high level of debt (Table 14, page 31); this is surprising in that temporary residents rely less than permanent residents on personal sources of support, the category that includes loans (Table 12, page 30). Hispanic Americans were the most likely of U.S. racial/ethnic groups to have educational debt. Black Americans were the most likely to report the highest level of debt. (See Table 14, page 31.)

FIGURE 12 Percentage of Ph.D.s with debt, total and by broad field, 1994.



See Table 13, page 31.
See technical notes in Appendix C for rates of nonresponse to the question on debt.

SOURCE: National Research Council, Survey of Earned Doctorates.

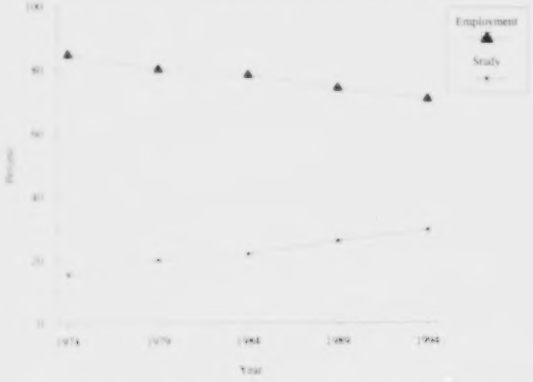
Postgraduation Plans

The proportion of Ph.D.s reporting definite postgraduation commitments declined from about two-thirds in the 1970s and 1980s to about three-fifths in 1994. (See "Definite commitments," page 87.) Of those Ph.D.s in 1994 who did report having definite postgraduation commitments, 71 percent planned to be employed while 29 percent planned postdoctoral study. (Postdoctoral appointments are considered to be study rather than employment in this report.) The proportion of new Ph.D.s with postdoctoral study plans has steadily increased since 1974, when only 15 percent planned further study. (See Table 15, page 32.)

- Doctorate recipients in education and professional/other fields were the most likely to have work plans (96 percent), followed closely by Ph.D.s in the humanities (93 percent). Study plans were by far most common in the life sciences (64 percent).

- The majority of Ph.D.s in every major demographic group planned to work rather than pursue further study after graduation. However, women were even more inclined towards employment than were men, and U.S. citizens were even more apt to work than were foreign citizens. A significant proportion of permanent visa-holders (45 percent) planned to continue their studies. Among the aggregate of U.S. citizens and permanent residents, blacks had the largest proportion with work plans (about 83 percent), and Asians had the largest proportion with study plans (49 percent). (See Table 16, page 33.) These patterns are explained mainly—and for blacks and women, entirely—by the fields in which these different groups tend to earn degrees.

FIGURE 13 Postgraduation commitments of doctorate recipients for selected years, 1974-1994.



NOTE: Only Ph.D.s with definite commitments are included. Percentages are based on the number of Ph.D.s whose specific plans are known.

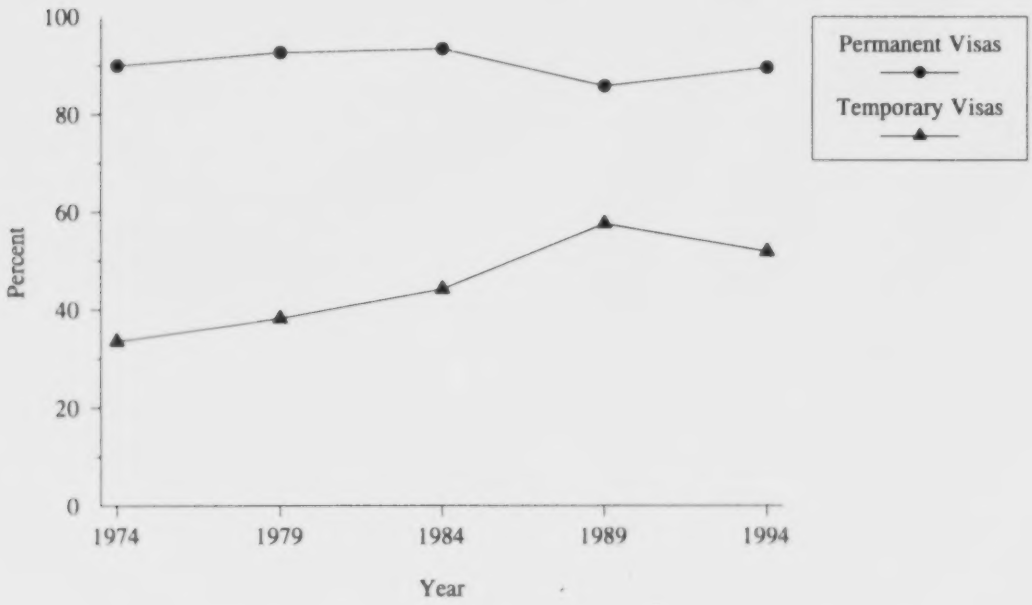
See Tables 15 and 16, pages 32 and 33.
See technical notes in Appendix C for rates of nonresponse to the applicable questions and for further explanation of postgraduation plans.

SOURCE: National Research Council, Survey of Earned Doctorates.

Of those who reported definite postdoctoral commitments in 1994, permanent residents were much more likely than temporary residents to plan to remain in the United States immediately after graduation (90 percent versus 52 percent). However, the proportion of temporary resident Ph.D.s planning to stay was higher in 1994 than in 1974 (34 percent). Among permanent residents, the percentage of Ph.D.s reporting plans to stay in the United States was about the same as twenty years ago. (See Table 17, page 34.)

- Postdoctoral study was planned by over half of the temporary residents who intended to remain in the United States, while permanent residents who intended to remain in the United States were more apt to work than to study. (See Table 18, page 35.)

FIGURE 14 Percentage of non-U.S. citizen doctorate recipients with definite plans to remain in the United States after graduation, by visa status for selected years, 1974-1994.



NOTE: Only Ph.D.s with definite commitments are included in the percentage computations.

See Table 17, page 34.
See technical notes in Appendix C for rates of nonresponse to the applicable questions.

SOURCE: National Research Council, Survey of Earned Doctorates.

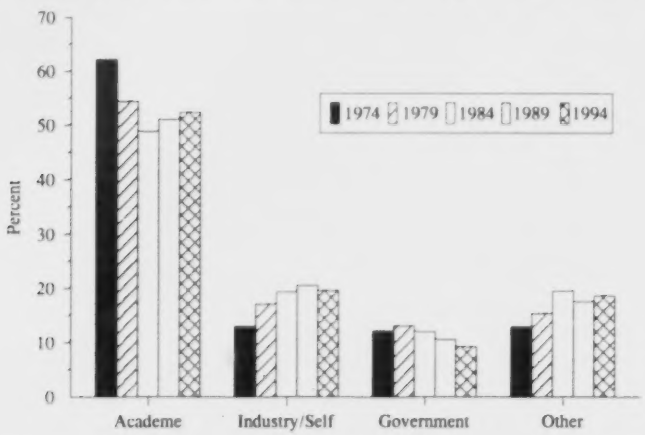
In 1994, as in earlier years, academe was the primary employer of U.S. citizens and permanent residents who had definite commitments for employment in the United States after graduation. However, the proportion of Ph.D.s intending to work in academe was smaller than 20 years ago (52 percent in 1994 versus 62 percent in 1974). (See Table 19, page 36.)

- Plans for employment in industry (including self-employment) increased from 13 percent of Ph.D.s in 1974 to 20 percent of Ph.D.s in 1994. "Other" employment sectors (namely K-12 schools and nonprofit organizations) showed almost as great an increase as industry, from 13 percent in 1974 to 19 percent in 1994.

- The sector of planned employment varied by field. In 1994, academic employment plans were most predominant in the humanities (85 percent) and professional/other fields (73 percent). Industry was most frequently reported among engineers (61 percent) and physical scientists (47 percent).

- Academic employment plans were more prevalent among women than men (59 percent versus 47 percent), and the proportion of men in industry (26 percent) was more than twice that of women. The majority of Ph.D.s in every racial/ethnic group but Asians reported plans to work in academe. Asians favored industry (49 percent) over academic employment (38 percent). (See Table 20, page 37.) The sectors chosen by the various demographic groups are partially explained by their fields of specialization.

FIGURE 15 Employment sector of doctorate recipients with postgraduation commitments in the United States for selected years, 1974-1994 (U.S. citizens and permanent residents).



NOTE: Only Ph.D.s with definite commitments for employment are included. Foreign locations are excluded. Percentages are based on the number of Ph.D.s whose employment sector is known. Government includes federal, state, and local government agencies in the United States.

See Tables 19 and 20, pages 36 and 37.
See technical notes in Appendix C for rates of nonresponse to this question.

SOURCE: National Research Council, Survey of Earned Doctorates.

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TABLE 1 Doctorates Awarded by U.S. Colleges and Universities, 1964-1994

Year	Number	Year	Number	Year	Number	Year	Number
1964	14,325	1972	33,041	1980	31,020	1988	33,499
1965	16,340	1973	33,755	1981	31,356	1989	34,324
1966	17,949	1974	33,047	1982	31,111	1990	36,067
1967	20,403	1975	32,952	1983	31,283	1991	37,518
1968	22,937	1976	32,946	1984	31,337	1992	38,850
1969	25,743	1977	31,716	1985	31,298	1993	39,755
1970	29,498	1978	30,875	1986	31,899	1994	41,011
1971	31,867	1979	31,239	1987	32,367		

SOURCE: National Research Council, Survey of Earned Doctorates.

TABLE 2 Gender of Doctorate Recipients, by Broad Field for Selected Years, 1964-1994

Field/Gender	1964	1969	1974	1979	1984	1989	1994
All Fields	14,325	25,743	33,047	31,239	31,337	34,324	41,011
Men	12,764	22,355	26,594	22,302	20,638	21,812	25,205
Women	1,561	3,388	6,453	8,937	10,699	12,512	15,806
Physical Sciences*	3,115	5,005	4,976	4,299	4,452	5,455	6,821
Men	2,979	4,743	4,592	3,803	3,795	4,425	5,438
Women	136	262	384	496	657	1,030	1,383
Engineering	1,664	3,265	3,147	2,490	2,913	4,543	5,826
Men	1,654	3,255	3,114	2,428	2,762	4,168	5,191
Women	10	10	33	62	151	375	635
Life Sciences	2,361	4,204	4,964	5,223	5,758	6,341	7,734
Men	2,117	3,622	4,058	3,952	3,965	3,917	4,516
Women	244	582	906	1,271	1,793	2,424	3,218
Social Sciences	2,258	3,984	5,882	5,961	5,929	5,961	6,624
Men	1,946	3,317	4,501	3,969	3,503	3,265	3,349
Women	312	667	1,381	1,992	2,426	2,696	3,275
Humanities	2,169	3,788	5,170	4,141	3,536	3,553	4,743
Men	1,819	2,937	3,594	2,549	1,947	1,940	2,479
Women	350	851	1,576	1,592	1,589	1,613	2,264
Education	2,351	4,659	7,241	7,385	6,808	6,278	6,683
Men	1,902	3,753	5,302	4,277	3,337	2,669	2,610
Women	449	906	1,939	3,108	3,471	3,609	4,073
Professional/Other	407	838	1,667	1,740	1,941	2,193	2,580
Men	347	728	1,433	1,324	1,329	1,428	1,622
Women	60	110	234	416	612	765	958

*Includes mathematics and computer sciences.

SOURCE: National Research Council, Survey of Earned Doctorates.

TABLE 3 Citizenship Status of Doctorate Recipients, by Broad Field for Selected Years, 1964-1994

Field/Citizenship	1964	1969	1974	1979	1984	1989	1994
All Fields	14,325	25,743	33,047	31,239	31,337	34,324	41,011
U.S. Citizens	12,121	21,541	26,343	25,464	24,027	23,400	27,105
Non-U.S., Permanent Visas	468	1,235	1,826	1,320	1,224	1,626	3,741
Non-U.S., Temporary Visas	1,463	2,334	3,359	3,587	4,832	6,646	9,393
Unknown Citizenship	273	633	1,519	868	1,254	2,652	772
Physical Sciences*	3,115	5,005	4,976	4,299	4,452	5,455	6,821
U.S. Citizens	2,600	4,114	3,672	3,287	3,130	3,233	3,623
Non-U.S., Permanent Visas	103	252	375	262	197	269	964
Non-U.S., Temporary Visas	349	527	738	667	991	1,536	2,085
Unknown Citizenship	63	112	191	83	134	417	149
Engineering	1,664	3,265	3,147	2,490	2,913	4,543	5,826
U.S. Citizens	1,288	2,387	1,752	1,293	1,239	1,864	2,211
Non-U.S., Permanent Visas	109	349	515	322	274	365	839
Non-U.S., Temporary Visas	247	460	704	815	1,269	1,940	2,656
Unknown Citizenship	20	69	176	60	131	374	120
Life Sciences	2,361	4,204	4,964	5,223	5,758	6,341	7,734
U.S. Citizens	1,830	3,334	3,690	4,197	4,566	4,533	4,947
Non-U.S., Permanent Visas	81	200	320	208	193	264	873
Non-U.S., Temporary Visas	413	617	727	683	821	1,152	1,829
Unknown Citizenship	37	53	227	135	178	392	85
Social Sciences	2,258	3,984	5,882	5,961	5,929	5,961	6,624
U.S. Citizens	1,915	3,400	4,862	5,074	4,782	4,306	4,998
Non-U.S., Permanent Visas	76	159	213	181	194	227	393
Non-U.S., Temporary Visas	203	327	520	506	635	824	1,045
Unknown Citizenship	64	98	287	200	318	604	188
Humanities	2,169	3,788	5,170	4,141	3,536	3,553	4,743
U.S. Citizens	1,957	3,373	4,518	3,652	2,962	2,725	3,713
Non-U.S., Permanent Visas	70	167	224	157	145	210	313
Non-U.S., Temporary Visas	80	140	216	200	252	346	632
Unknown Citizenship	62	108	212	132	177	272	85
Education	2,351	4,659	7,241	7,385	6,808	6,278	6,683
U.S. Citizens	2,199	4,266	6,558	6,568	5,912	5,245	5,842
Non-U.S., Permanent Visas	16	70	102	117	130	164	198
Non-U.S., Temporary Visas	120	191	302	481	540	450	537
Unknown Citizenship	16	132	279	219	226	419	106
Professional/Other	407	838	1,667	1,740	1,941	2,193	2,580
U.S. Citizens	332	667	1,291	1,393	1,436	1,494	1,771
Non-U.S., Permanent Visas	13	38	77	73	91	127	161
Non-U.S., Temporary Visas	51	72	152	235	324	398	609
Unknown Citizenship	11	61	147	39	90	174	39

NOTE: See Table 4 for information related to the changing visa status of non-U.S. citizen Ph.D.s in recent years. See technical notes in Appendix C for rates of nonresponse to the question on citizenship status.

*Includes mathematics and computer sciences.

SOURCE: National Research Council, Survey of Earned Doctorates.

TABLE 4 Visa Status of Ph.D.s from the People's Republic of China Versus Other Non-U.S. Citizens, 1989-1994

		1989	1990	1991	1992	1993	1994
Total Non-U.S. Citizens	N	8,272	9,791	11,165	11,929	12,175	13,134
Permanent Visas	%	19.7	17.3	16.6	16.6	18.5	28.5
Temporary Visas	%	80.3	82.7	83.4	83.4	81.5	71.5
People's Republic of China Citizens	N	656	1,225	1,919	2,238	2,416	2,768
Permanent Visas	%	5.3	4.7	5.8	8.6	16.1	64.6
Temporary Visas	%	94.7	95.3	94.2	91.4	83.9	35.4
Other Non-U.S. Citizens	N	7,616	8,566	9,246	9,691	9,759	10,366
Permanent Visas	%	20.9	19.1	18.9	18.4	19.1	18.8
Temporary Visas	%	79.1	80.9	81.1	81.6	80.9	81.2

NOTE: See technical notes in Appendix C for rates of nonresponse to the questions on country of citizenship and citizenship status.

SOURCE: National Research Council, Survey of Earned Doctorates.

TABLE 5 Leading Countries of Origin of Non-U.S. Citizens Earning Ph.D.s at U.S. Colleges and Universities, 1994 (ranked on number of Ph.D.s)

Country	Number	Country	Number
1. People's Republic of China*	2,768	16. Pakistan	137
2. Taiwan*	1,577	17. France	132
3. Republic of Korea†	1,473	18. Hong Kong	130
4. India	1,287	19. Egypt	125
5. Canada	490	20. Spain	113
6. Germany	257	21. Nigeria	112
7. Japan	235	22. Italy	108
8. England	215	23. Malaysia	108
9. Brazil	202	24. Saudi Arabia	107
10. Iran	193	25. Indonesia	98
11. Greece	188	26. Australia	96
12. Mexico	176	27. Jordan	92
13. Turkey	163	28. Lebanon	89
14. Thailand	155	29. The Philippines	89
15. Israel	142	30. Sri Lanka	83
		Top 30 Countries of Origin	*11,140*
		Total Countries Reported (150)	*13,049*

NOTE: The total number of non-U.S. citizens who earned doctorates in 1994 was 13,134; nearly all (13,049 Ph.D.s) reported their country of origin. See technical notes in Appendix C for rates of nonresponse to the questions on country of citizenship and citizenship status.

*An additional 16 Ph.D.s indicated "China" as their country of citizenship, but the specific origin could not be determined. Data for these recipients are excluded from this table.
†Includes "Korea" (unspecified). The Democratic People's Republic of Korea (North Korea) does not permit its citizens to study in the United States.

SOURCE: National Research Council, Survey of Earned Doctorates.

TABLE 6 Leading U.S. Baccalaureate Institutions of U.S. Minority Ph.D.s, 1990-1994 (ranked on number of Ph.D.s)

Institution	Number	Institution	Number
Asians		Hispanics	
Univ. of California-Berkeley	255	Univ. of Puerto Rico-Rio Piedras	497
Univ. of California-Los Angeles	134	Univ. of Puerto Rico-Mayaguez	91
Univ. of Hawaii-Manoa	123	Univ. of California-Berkeley	71
Massachusetts Inst. of Technology	109	Univ. of Texas-Austin	63
Harvard Univ.	81	Univ. of California-Los Angeles	59
Cornell Univ.	70	Univ. of Miami	53
Univ. of California-Davis	60	Univ. of New Mexico	51
Univ. of Illinois-Urbana/Champaign	59	Univ. of Arizona	40
Stanford Univ.	54	Catholic Univ. of Puerto Rico	40
California Inst. of Technology	52	Univ. of Texas-El Paso	39
Univ. of Washington	49	California State Univ.-Los Angeles	39
Univ. of Michigan	46	Univ. of California-Santa Barbara	39
Univ. of California-Irvine	46	Cornell Univ.	36
Yale Univ.	43	Inter American Univ.-San German	34
Univ. of Southern California	39	Florida International Univ.	32
Univ. of Maryland-College Park	37	Harvard Univ.	30
Columbia Univ.	30	Univ. of California-Irvine	30
Univ. of Chicago	30	City Univ. of NY-City College	29
Johns Hopkins Univ.	28	Univ. of Florida	29
Univ. of Texas-Austin	28	Univ. of California-San Diego	29
Top 20 U.S. Institutions	*1,373*	*Top 20 U.S. Institutions*	*1,331*
Total U.S. Institutions Reported (492)	*3,026*	*Total U.S. Institutions Reported (658)*	*3,695*
Blacks		Native Americans	
Howard Univ.*	122	Univ. of Oklahoma	17
Spelman College*	73	Northeastern State Univ.	15
Hampton Univ.*	71	Oklahoma State Univ.	15
Tuskegee Univ.*	66	Pembroke State Univ.	9
North Carolina A & T St. Univ.*	63	Univ. of Arkansas-Fayetteville	8
Wayne State Univ.	58	Univ. of Central Oklahoma	8
Southern Univ. & A&M Univ.-Baton Rouge*	55	Univ. of Montana	8
North Carolina Central Univ.*	50	Univ. of Colorado-Boulder	7
Florida A & M Univ.*	50	Northern Arizona Univ.	7
South Carolina State Univ.*	46	Univ. of California-Berkeley	7
Jackson State Univ.*	46	Univ. of California-Santa Barbara	7
Chicago State Univ.	44	Univ. of Illinois-Urbana/Champaign	6
Fisk Univ.*	44	Western Washington Univ.	6
Texas Southern Univ.*	44	Cornell Univ.	5
Tennessee State Univ.*	43	Michigan State Univ.	5
Morgan State Univ.*	42	Univ. of South Dakota	5
Univ. of Maryland-College Park	40	Univ. of Virginia	5
Univ. of Michigan	39	Arizona State Univ.	5
Temple Univ.	37	Univ. of Washington	5
Clark Atlanta Univ.*	37		
Top 20 U.S. Institutions	*1,070*	*Top 19 U.S. Institutions*	*150*
Total U.S. Institutions Reported (835)	*4,926*	*Total U.S. Institutions Reported (356)*	*635*

Note: Approximately 1,850 U.S. institutions awarded baccalaureate degrees to U.S. citizens who received Ph.D.s between 1990 and 1994.

NOTE: See technical notes in Appendix C for total numbers of U.S. minority Ph.D.s in this period, the percentage reporting foreign institutions, and rates of nonresponse to baccalaureate institution, citizenship, and race/ethnicity.

*This institution is one of the "Historically Black Colleges and Universities" (HBCUs) that were founded during legal segregation in the late 1800s and early 1900s for the specific purpose of educating blacks. There are currently 103 HBCUs, 90 of which award baccalaureates.

SOURCE: National Research Council, Survey of Earned Doctorates.

TABLE 7 Leading Ph.D. Institutions of U.S. Minority Ph.D.s, 1990-1994 (ranked on number of Ph.D.s)

Institution	Number
Asians	
Univ. of California-Berkeley	208
Univ. of California-Los Angeles	203
Stanford Univ.	155
Univ. of Southern California	125
Univ. of Illinois-Urbana/Champaign	112
Harvard Univ.	93
Massachusetts Inst. of Technology	91
Univ. of Hawaii-Manoa	84
Univ. of Michigan	81
Univ. of Washington	68
Cornell Univ.	64
Univ. of California-Davis	57
Univ. of California-Irvine	56
Univ. of Maryland-College Park	54
Yale Univ.	53
Univ. of Texas-Austin	52
Northwestern Univ.	51
Univ. of Wisconsin-Madison	51
Univ. of California-San Diego	51
Top 19 Institutions	*1,709*
Total Institutions Reported (285)	*4,103*
Blacks	
Howard Univ.*	180
Clark Atlanta Univ.*	168
Nova Southeastern Univ.	161
Columbia Univ.-Teachers College	130
Univ. of Maryland-College Park	113
Ohio State Univ.	111
Wayne State Univ.	110
Univ. of Massachusetts-Amherst	91
Temple Univ.	90
Univ. of Michigan	88
Florida State Univ.	74
Univ. of North Carolina-Chapel Hill	70
Univ. of Pittsburgh	64
Texas Southern Univ.*	64
Univ. of South Carolina	62
Univ. of California-Berkeley	60
Michigan State Univ.	58
Univ. of Florida	58
Univ. of Texas-Austin	58
Harvard Univ.	57
George Washington Univ.	57
Top 21 Institutions	*1,924*
Total Institutions Reported (278)	*5,062*

Institution	Number
Hispanics	
Univ. of Texas-Austin	122
Univ. of Puerto Rico-Rio Piedras	118
Univ. of California-Los Angeles	109
Univ. of California-Berkeley	100
Texas A & M Univ.	96
Univ. of Massachusetts-Amherst	76
Harvard Univ.	75
New York Univ.	75
Stanford Univ.	71
Univ. of Michigan	68
Univ. of Southern California	65
Univ. of Miami	64
Univ. of New Mexico	62
CUNY-Grad. School & Univ. Center	59
Univ. of Arizona	59
Univ. of Wisconsin-Madison	58
Univ. of Illinois-Urbana/Champaign	50
Columbia Univ.-Teachers College	47
Penn State Univ.	46
Univ. of Florida	46
Univ. of California-Davis	46
Top 21 Institutions	*1,512*
Total Institutions Reported (280)	*3,942*
Native Americans	
Oklahoma State Univ.	22
Univ. of Oklahoma	22
Penn State Univ.	13
Northern Arizona Univ.	12
Univ. of California-Berkeley	12
Univ. of Wisconsin-Madison	11
Univ. of Texas-Austin	10
Univ. of Washington	10
Univ. of Oregon	10
Stanford Univ.	10
Harvard Univ.	9
Univ. of Michigan	9
Univ. of Arkansas-Fayetteville	9
Texas A&M Univ.	9
Univ. of Arizona	9
Univ. of Illinois-Urbana/Champaign	8
Univ. of Missouri-Columbia	8
Univ. of South Dakota	8
Univ. of North Carolina-Chapel Hill	8
Univ. of Tennessee-Knoxville	8
Top 20 Institutions	*217*
Total Institutions Reported (194)	*637*

Note: 381 institutions awarded doctorates between 1990 and 1994.

NOTE: See technical notes in Appendix C for rates of nonresponse to citizenship and race/ethnicity.

*This institution is one of the "Historically Black Colleges and Universities" (HBCUs) that were founded during legal segregation in the late 1800s and early 1900s for the specific purpose of educating blacks. There are currently 103 HBCUs, 12 of which award doctorates.

SOURCE: National Research Council, Survey of Earned Doctorates.

TABLE 8 Major Field of Doctorate Recipients for Selected Years, 1964-1994

Field	1964	1969	1974	1979	1984	1989	1994
All Fields	14,325	25,743	33,047	31,239	31,337	34,324	41,011
Physical Sciences	3,115	5,005	4,976	4,299	4,452	5,455	6,821
Physics/Astronomy	866	1,461	1,339	1,108	1,080	1,274	1,692
Chemistry	1,351	1,967	1,797	1,566	1,765	1,970	2,254
Earth, Atmos., & Marine Sci.	310	507	629	646	614	740	853
Mathematics	588	1,070	1,211	769	698	859	1,118
Computer Sciences*	NA	NA	NA	210	295	612	904
Engineering	1,664	3,265	3,147	2,490	2,913	4,543	5,826
Life Sciences	2,361	4,204	4,964	5,223	5,758	6,341	7,734
Biological Sciences	1,702	3,092	3,484	3,646	3,880	4,115	5,197
Health Sciences	142	297	476	568	722	974	1,297
Agricultural Sciences	517	815	1,004	1,009	1,156	1,252	1,240
Social Sciences	2,258	3,984	5,882	5,961	5,929	5,961	6,624
Psychology	1,013	1,766	2,598	3,091	3,257	3,208	3,260
Anthropology	83	181	379	383	335	325	384
Economics	527	708	851	802	793	898	940
Poli. Sci. & Int'l. Relations	337	558	909	603	514	524	703
Sociology	201	413	645	632	515	436	524
Other Social Sciences	97	358	500	450	515	570	813
Humanities	2,169	3,788	5,170	4,141	3,536	3,553	4,743
History	530	886	1,186	829	617	538	800
Amer. & Eng. Lang. & Lit.	528	1,029	1,369	909	733	720	943
Foreign Lang. & Lit.	271	584	887	646	492	432	595
Other Humanities	840	1,289	1,728	1,757	1,694	1,863	2,405
Education	2,351	4,659	7,241	7,385	6,808	6,278	6,683
Teacher Education	277	393	658	492	431	451	400
Teaching Fields	564	1,100	1,479	1,411	1,170	968	960
Other Education	1,510	3,166	5,104	5,482	5,207	4,859	5,323
Professional/Other	407	838	1,667	1,740	1,941	2,193	2,580
Business & Management	246	516	796	715	869	1,067	1,285
Communications	21	38	311	285	255	306	371
Other Professional Fields	121	189	474	717	802	766	885
Other Fields	19	95	86	23	15	54	39

*"Computer sciences" first appeared on the survey form in 1978.

SOURCE: National Research Council, Survey of Earned Doctorates.

TABLE 9 Major Field of U.S. Citizen Ph.D.s, by Race/Ethnicity, 1994

Field	Total U.S. Citizen Ph.D.s	Known Race/ Ethnicity	Asians*	Blacks	His-panics	Native Amers.†	Whites
All Fields	27,105	26,852	949	1,092	882	142	23,787
Physical Sciences	3,623	3,590	179	52	99	10	3,250
Physics/Astronomy	891	879	51	9	26	2	791
Chemistry	1,289	1,283	69	23	49	4	1,138
Earth, Atmos., & Marine Sci.	521	518	8	4	7	1	498
Mathematics	496	489	18	9	12	2	448
Computer Sciences	426	421	33	7	5	1	375
Engineering	2,211	2,183	202	44	49	6	1,882
Life Sciences	4,947	4,897	246	116	146	24	4,365
Biological Sciences	3,415	3,386	194	63	110	16	3,003
Health Sciences	961	949	36	41	20	6	846
Agricultural Sciences	571	562	16	12	16	2	516
Social Sciences	4,998	4,946	132	200	176	27	4,411
Psychology	2,954	2,931	81	110	126	11	2,603
Anthropology	303	298	5	9	5	6	273
Economics	392	390	14	9	8	0	359
Poli. Sci. & Int'l. Relations	463	455	13	24	16	4	398
Sociology	364	360	10	20	11	4	315
Other Social Sciences	522	512	9	28	10	2	463
Humanities	3,713	3,679	68	102	138	23	3,348
History	675	668	8	18	22	6	614
Amer. & Eng. Lang. & Lit.	834	828	13	25	22	7	761
Foreign Lang. & Lit.	368	364	6	8	46	0	304
Other Humanities	1,836	1,819	41	51	48	10	1,669
Education	5,842	5,796	80	482	225	36	4,973
Teacher Education	361	361	4	42	11	2	302
Teaching Fields	770	768	16	34	20	4	694
Other Education	4,711	4,667	60	406	194	30	3,977
Professional/Other	1,771	1,761	42	96	49	16	1,558
Business & Management	811	808	20	29	16	7	736
Communications	267	266	3	22	9	3	229
Other Professional Fields	669	663	19	45	24	5	570
Other Fields	24	24	0	0	0	1	23

NOTE: See technical notes in Appendix C for the rate of nonresponse to the question on race/ethnicity.

*"Asians" includes Pacific Islanders.
†"Native Americans" includes American Indians and Alaskan Natives.

SOURCE: National Research Council, Survey of Earned Doctorates.

TABLE 10 Median Years to Doctorate from Baccalaureate Award, by Broad Field for Selected Years, 1969-1994

Field	1969	1974	1979	1984	1989	1994
All Fields						
Total	8.0	8.6	9.1	10.0	10.6	10.8
Registered	5.5	6.0	6.2	6.9	7.0	7.2
Physical Sciences*						
Total	6.0	6.9	6.9	7.2	7.5	8.5
Registered	5.2	5.7	5.9	6.0	6.2	6.7
Engineering						
Total	7.0	7.7	7.6	8.0	8.3	9.0
Registered	5.2	5.7	5.7	5.9	6.1	6.4
Life Sciences						
Total	7.0	7.3	7.4	8.3	9.2	9.5
Registered	5.3	5.6	5.9	6.3	6.7	7.0
Social Sciences						
Total	7.5	7.9	8.5	9.8	10.5	10.5
Registered	5.5	5.9	6.3	7.1	7.5	7.5
Humanities						
Total	9.3	9.4	10.3	11.6	12.6	12.0
Registered	6.0	6.7	7.6	8.3	8.5	8.5
Education						
Total	13.4	12.5	12.9	14.8	17.3	19.7
Registered	6.2	6.3	6.7	7.7	8.2	8.1
Professional/Other						
Total	10.6	10.0	10.9	12.3	13.3	13.5
Registered	5.3	6.0	6.3	7.2	7.6	7.5

NOTE: Median calculations are based on the number of individuals who provided complete information about their postbaccalaureate education. "Total" time-to-degree measures the number of years elapsed between receipt of the baccalaureate and the Ph.D. "Registered" time-to-degree gauges the amount of time enrolled in graduate school, including master's degrees and enrollment in nondegree programs. *Please note that the method of median computation has been revised since last year.* See technical notes in Appendix C for explanation of the revision and also for rates of nonresponse to the applicable questions.

*Includes mathematics and computer sciences.

SOURCE: National Research Council, Survey of Earned Doctorates.

TABLE 11 Median Years to Doctorate from Baccalaureate Award, by Demographic Group and Broad Field, 1994

	All Fields	Physical Sci.*	Engi-neering	Life Sci.	Social Sci.	Human-ities	Educa-tion	Prof./ Other
Total Time from Baccalaureate								
All Ph.D.s	10.8	8.5	9.0	9.5	10.5	12.0	19.7	13.5
Men	10.1	8.5	9.1	9.4	10.7	11.7	19.0	13.0
Women	12.0	8.1	8.6	9.8	10.2	12.3	20.0	14.6
U.S. Citizens	11.5	7.5	8.3	9.0	10.3	12.3	20.3	15.3
Non-U.S., Permanent Visas	10.9	10.7	10.7	10.4	11.5	11.8	13.0	11.5
Non-U.S., Temporary Visas	9.8	9.0	9.0	10.0	10.2	10.0	13.0	11.0
U.S. Citizens								
Asians†	9.0	7.6	8.0	8.6	9.3	10.6	17.1	13.7
Blacks	17.2	8.4	8.4	11.0	12.1	14.6	21.2	17.0
Hispanics	11.3	7.0	8.0	8.7	9.3	11.8	19.0	16.0
Native Americans‡	14.6	7.8	8.7	8.6	13.1	16.7	18.0	17.8
Whites	11.4	7.5	8.3	9.1	10.4	12.3	20.4	15.0
Registered Time from Baccalaureate								
All Ph.D.s	7.2	6.7	6.4	7.0	7.5	8.5	8.1	7.5
Men	7.0	6.8	6.4	6.9	7.5	8.3	8.2	7.4
Women	7.5	6.6	6.3	7.0	7.5	8.6	8.1	7.5
U.S. Citizens	7.3	6.5	6.2	7.0	7.5	8.6	8.4	7.6
Non-U.S., Permanent Visas	7.4	7.5	7.0	7.0	7.5	8.5	7.8	7.4
Non-U.S., Temporary Visas	6.8	6.9	6.3	6.7	7.4	7.5	6.4	7.1
U.S. Citizens								
Asians†	7.1	6.5	6.5	7.0	7.5	8.3	9.0	8.3
Blacks	7.9	6.2	6.6	7.0	8.1	8.2	8.0	7.5
Hispanics	7.5	6.5	6.3	7.0	7.6	8.6	8.4	7.7
Native Americans‡	7.5	6.0	6.5	7.1	6.5	9.0	8.6	7.7
Whites	7.3	6.4	6.2	7.0	7.5	8.6	8.4	7.6

NOTE: Median calculations are based on the number of individuals who provided complete information about their postbaccalaureate education. "Total time" measures the number of years elapsed between receipt of the baccalaureate and the Ph.D. "Registered time" gauges the amount of time enrolled in graduate school, including master's degrees and enrollment in nondegree programs. *Please note that the method of median computation has been revised since last year.* See technical notes in Appendix C for explanation of the revision and also for rates of nonresponse to the applicable questions.

*Includes mathematics and computer sciences.
†"Asians" includes Pacific Islanders.
‡"Native Americans" includes American Indians and Alaskan Natives.

SOURCE: National Research Council, Survey of Earned Doctorates.

TABLE 12 Primary Sources of Support for Doctorate Recipients, by Broad Field and Demographic Group, 1994 (includes only Ph.D.s who reported primary source of support)

Primary Source of Support (responses only)		All Ph.D.s	Men	Women	U.S. Cits.	Perm. Visas	Temp. Visas	U.S. Citizens*				
								Asians	Blacks	His-panics	Native Amers.	Whites
All Fields	N	29,658	18,193	11,465	20,600	2,565	6,478	683	703	608	101	18,385
Personal	%	36.3	29.9	46.4	45.8	17.1	13.8	26.6	56.0	46.9	54.5	46.1
University	%	51.7	57.1	43.3	43.0	77.4	69.3	54.5	28.9	35.0	38.6	43.4
Federal	%	5.4	5.2	5.7	7.1	1.1	1.5	13.3	7.8	13.7	2.0	6.7
Other	%	6.6	7.9	4.6	4.1	4.4	15.4	5.6	7.3	4.4	5.0	3.9
Physical Sciences†	N	5,084	4,029	1,055	2,939	691	1,451	139	39	70	8	2,663
Personal	%	11.3	11.5	10.4	15.4	5.8	5.5	12.2	17.9	11.4	25.0	15.7
University	%	78.3	78.1	79.2	72.0	90.7	85.3	71.9	59.0	62.9	75.0	72.4
Federal	%	4.9	4.8	5.3	8.1	0.7	0.5	10.1	7.7	17.1	0.0	7.7
Other	%	5.5	5.6	5.0	4.5	2.7	8.8	5.8	15.4	8.6	0.0	4.2
Engineering	N	4,327	3,850	477	1,803	608	1,914	158	36	40	6	1,546
Personal	%	15.7	16.4	10.3	19.6	13.7	12.8	19.6	5.6	17.5	50.0	19.9
University	%	68.3	68.2	69.4	58.6	80.6	73.5	61.4	36.1	42.5	50.0	59.2
Federal	%	5.3	4.5	11.5	12.1	0.5	0.4	7.6	30.6	37.5	0.0	11.6
Other	%	10.7	10.9	8.8	9.7	5.3	13.3	11.4	27.8	2.5	0.0	9.2
Life Sciences	N	5,694	3,299	2,395	3,826	611	1,255	182	77	100	17	3,429
Personal	%	20.7	17.8	24.8	26.7	8.5	8.4	18.1	26.0	22.0	35.3	27.3
University	%	58.7	61.8	54.4	51.4	84.8	68.4	51.6	45.5	43.0	58.8	51.6
Federal	%	12.9	11.5	14.9	18.0	2.5	2.4	27.5	19.5	32.0	5.9	17.1
Other	%	7.6	8.9	5.9	3.9	4.3	20.8	2.7	9.1	3.0	0.0	3.9
Social Sciences	N	4,741	2,333	2,408	3,804	232	701	95	124	127	21	3,412
Personal	%	47.6	43.5	51.7	53.4	37.5	19.4	41.1	42.7	47.2	57.1	54.4
University	%	43.1	45.2	41.0	39.7	55.2	57.2	46.3	38.7	33.9	33.3	39.9
Federal	%	4.7	4.7	4.8	5.1	1.3	4.0	9.5	11.3	13.4	0.0	4.4
Other	%	4.6	6.6	2.6	1.7	6.0	19.4	3.2	7.3	5.5	9.5	1.3
Humanities	N	3,282	1,701	1,581	2,672	191	418	35	57	88	17	2,453
Personal	%	42.7	43.2	42.1	46.0	36.1	24.4	31.4	49.1	39.8	47.1	46.3
University	%	50.2	48.9	51.6	47.8	58.6	61.5	51.4	38.6	52.3	35.3	48.0
Federal	%	2.2	2.5	1.8	2.2	1.0	2.6	11.4	3.5	2.3	0.0	2.0
Other	%	5.0	5.3	4.6	4.0	4.2	11.5	5.7	8.8	5.7	17.6	3.7
Education	N	4,681	1,818	2,863	4,232	130	319	46	312	147	22	3,693
Personal	%	79.2	78.3	79.7	83.1	53.8	37.6	69.6	82.4	87.1	86.4	83.2
University	%	14.4	13.5	15.0	12.2	40.8	32.6	23.9	13.8	8.2	9.1	12.1
Federal	%	1.2	1.4	1.0	1.1	0.0	2.5	4.3	1.6	3.4	4.5	0.9
Other	%	5.2	6.8	4.2	3.6	5.4	27.3	2.2	2.2	1.4	0.0	3.8
Professional/Other	N	1,849	1,163	686	1,324	102	420	28	58	36	10	1,189
Personal	%	52.2	50.5	55.2	62.2	37.3	25.0	67.9	46.6	69.4	50.0	62.7
University	%	37.8	37.8	37.8	31.6	55.9	53.3	28.6	32.8	22.2	50.0	31.6
Federal	%	1.5	1.4	1.7	1.8	0.0	1.0	0.0	8.6	0.0	0.0	1.6
Other	%	8.4	10.3	5.2	4.5	6.9	20.7	3.6	12.1	8.3	0.0	4.0

NOTE: Numbers represent those Ph.D.s with known primary support; percentages are based on these numbers. Because nonresponse to "primary" source of support is much greater than for other variables and fluctuates from year to year, the reader is advised *not* to compare percentages in this table with those published in earlier reports. The overall nonresponse rate for "primary" source of support was 27.7 percent in 1994, compared to 33.9 percent in 1993, 30.4 percent in 1992, and 22.5 percent in 1991. See technical notes in Appendix C for further information.

"Personal" includes loans as well as own earnings and contributions from the spouse/family. Federally funded research assistantships (RAs) are grouped under "University" because not all recipients of such support are aware of the actual source of funding. For further definition of "Federal" support, see item 17 on the survey questionnaire in Appendix D. "Other" support includes U.S. nationally competitive fellowships, business/employer funds, foreign government, and state government.

*"Asians" includes Pacific Islanders. "Native Americans" includes American Indians and Alaskan Natives.
†Includes mathematics and computer sciences.
SOURCE: National Research Council, Survey of Earned Doctorates.

TABLE 13 Cumulative Debt Related to the Education of Doctorate Recipients, by Broad Field, 1994

		All Fields	Physical Sci.*	Engi-neering	Life Sci.	Social Sci.	Human-ities	Educa-tion	Prof./ Other
All Ph.D.s	N	41,011	6,821	5,826	7,734	6,624	4,743	6,683	2,580
Responses to Debt Status	N	38,009	6,383	5,368	7,216	6,086	4,450	6,120	2,386
Without Debt	%	52.7	58.4	62.2	51.7	38.4	44.4	60.4	50.5
With Debt	%	47.3	41.6	37.8	48.3	61.6	55.6	39.6	49.5
$5,000 or less	%	12.3	12.9	10.9	13.2	11.9	14.1	11.2	11.3
$5,001 to $10,000	%	10.1	11.1	7.6	11.2	10.9	12.1	7.7	9.6
$10,001 to $15,000	%	7.3	7.0	5.9	7.8	8.7	9.9	5.2	7.2
$15,001 to $20,000	%	5.0	3.9	3.8	4.9	6.9	6.4	4.2	5.0
$20,001 to $25,000	%	3.4	2.1	2.1	3.2	5.5	4.4	2.9	4.8
$25,001 to $30,000	%	2.7	1.3	1.8	2.4	4.6	3.1	2.9	3.4
$30,001 or more	%	6.5	3.3	5.6	5.6	13.1	5.6	5.4	8.2

NOTE: This table displays information on debt related to a recipient's *combined undergraduate and graduate education*. "All Ph.D.s" includes recipients whose debt status is unknown. Percentages are based on the number with "Responses to Debt Status." The "With Debt" and "Without Debt" percentages add to 100.0. Percentages for levels of debt add to the total percentage of Ph.D.s "With Debt." See technical notes in Appendix C for the rate of nonresponse to this question.

*Includes mathematics and computer sciences.

SOURCE: National Research Council, Survey of Earned Doctorates.

TABLE 14 Cumulative Debt Related to the Education of Doctorate Recipients, by Demographic Group, 1994

								U.S. Citizens*				
		All Ph.D.s	Men	Women	U.S. Cits.	Perm. Visas	Temp. Visas	Asians	Blacks	His-panics	Native Amers.	Whites
All Ph.D.s	N	41,011	25,205	15,806	27,105	3,741	9,393	949	1,092	882	142	23,787
Responses to Debt Status	N	38,009	23,319	14,690	25,814	3,519	8,656	911	1,018	825	137	22,775
Without Debt	%	52.7	52.8	52.5	44.6	72.9	68.4	45.3	37.5	34.9	38.7	45.4
With Debt	%	47.3	47.2	47.5	55.4	27.1	31.6	54.7	62.5	65.1	61.3	54.6
$5,000 or less	%	12.3	12.5	12.0	13.7	7.7	10.0	12.4	15.2	16.7	15.3	13.5
$5,001 to $10,000	%	10.1	10.2	9.9	12.1	6.3	5.5	13.1	9.9	13.2	9.5	12.2
$10,001 to $15,000	%	7.3	7.3	7.5	9.1	3.9	3.4	9.8	9.4	10.7	8.8	9.0
$15,001 to $20,000	%	5.0	5.0	4.9	6.2	2.0	2.4	6.3	7.2	7.0	4.4	6.1
$20,001 to $25,000	%	3.4	3.2	3.7	4.3	1.7	1.6	3.0	4.8	4.6	8.0	4.3
$25,001 to $30,000	%	2.7	2.6	2.8	3.2	1.8	1.6	2.4	4.4	4.4	6.6	3.1
$30,001 or more	%	6.5	6.4	6.8	6.7	3.8	7.1	7.8	11.5	8.5	8.8	6.4

NOTE: This table displays information on debt related to a recipient's *combined undergraduate and graduate education*. "All Ph.D.s" includes recipients whose debt status is unknown. Percentages are based on the number with "Responses to Debt Status." The "With Debt" and "Without Debt" percentages add to 100.0. Percentages for levels of debt add to the total percentage of Ph.D.s "With Debt." See technical notes in Appendix C for the rate of nonresponse to this question.

*"Asians" includes Pacific Islanders. "Native Americans" includes American Indians and Alaskan Natives.

SOURCE: National Research Council, Survey of Earned Doctorates.

TABLE 15 Postgraduation Commitments of Doctorate Recipients, by Type of Plans and Broad Field for Selected Years, 1974-1994

		All Fields	Physical Sci.*	Engi-neering	Life Sci.	Social Sci.	Human-ities	Educa-tion	Prof./ Other
All Definite Commitments									
1974	N	22,283	3,278	2,070	3,418	4,115	3,127	5,028	1,247
1979	N	21,411	3,196	1,815	3,807	3,999	2,279	4,935	1,380
1984	N	20,788	3,148	1,833	3,939	3,688	1,994	4,746	1,440
1989	N	22,813	3,756	2,675	4,537	3,768	2,176	4,327	1,574
1994	N	24,898	4,065	2,953	5,113	4,003	2,580	4,439	1,745
Definite Commitments with Responses to Type of Plans									
1974	N	22,123	3,270	2,061	3,398	4,089	3,090	4,979	1,236
1979	N	21,228	3,185	1,809	3,782	3,958	2,250	4,880	1,364
1984	N	20,735	3,139	1,825	3,932	3,680	1,984	4,735	1,440
1989	N	22,697	3,743	2,667	4,525	3,753	2,151	4,294	1,564
1994	N	24,732	4,058	2,942	5,093	3,970	2,546	4,392	1,731
Employment									
1974	%	84.6	63.5	89.8	58.2	91.6	96.7	97.7	98.4
1979	%	80.0	62.8	87.6	45.7	87.7	94.3	97.3	97.4
1984	%	78.2	59.5	84.9	42.6	86.5	95.5	97.7	98.3
1989	%	74.1	52.5	80.0	41.4	84.0	94.3	96.6	97.2
1994	%	70.6	48.5	75.8	36.0	80.0	92.9	96.3	96.3
Study									
1974	%	15.4	36.5	10.2	41.8	8.4	3.3	2.3	1.6
1979	%	20.0	37.2	12.4	54.3	12.3	5.7	2.7	2.6
1984	%	21.8	40.5	15.1	57.4	13.5	4.5	2.3	1.7
1989	%	25.9	47.5	20.0	58.6	16.0	5.7	3.4	2.8
1994	%	29.4	51.5	24.2	64.0	20.0	7.1	3.7	3.7

NOTE: Only Ph.D.s with definite commitments are included. "All Definite Commitments" includes recipients who reported definite commitments but not type of plans (employment or study). Percentages are based on the number of Ph.D.s who reported a definite commitment and a type of plan. See technical notes in Appendix C for rates of nonresponse to the applicable questions and for further explanation of postgraduation plans.

*Includes mathematics and computer sciences.

SOURCE: National Research Council, Survey of Earned Doctorates.

TABLE 16 Postgraduation Commitments of Doctorate Recipients, by Type of Plans and Demographic Group for Selected Years, 1974-1994

		All Ph.D.s	Men	Women	U.S. Cits.	Perm. Visas	Temp. Visas	U.S. Citizens & Permanent Residents* Asians	Blacks	His-panics	Native Amers.	Whites
All Definite Commitments												
1974	N	22,283	18,391	3,892	18,979	1,076	2,181	NA	NA	NA	NA	NA
1979	N	21,411	15,789	5,622	18,137	820	2,422	719	693	348	53	16,279
1984	N	20,788	13,979	6,809	17,087	686	2,979	617	678	389	44	15,756
1989	N	22,813	14,481	8,332	17,610	948	4,222	802	650	492	67	16,251
1994	N	24,898	14,972	9,926	18,105	1,808	4,974	1,792	792	665	95	16,464
Definite Commitments with Responses to Type of Plans												
1974	N	22,123	18,262	3,861	18,871	1,060	2,149	NA	NA	NA	NA	NA
1979	N	21,228	15,655	5,573	18,010	811	2,376	713	678	345	53	16,177
1984	N	20,735	13,937	6,798	17,058	683	2,958	617	673	388	43	15,731
1989	N	22,697	14,413	8,284	17,531	940	4,194	800	640	486	67	16,188
1994	N	24,732	14,882	9,850	17,991	1,797	4,933	1,784	783	655	94	16,367
Employment												
1974	%	84.6	84.5	85.1	86.1	74.1	76.5	NA	NA	NA	NA	NA
1979	%	80.0	79.1	82.5	80.6	77.3	76.3	73.2	93.8	86.7	86.8	80.1
1984	%	78.2	76.3	82.0	78.7	78.8	75.2	72.4	93.0	84.8	90.7	78.2
1989	%	74.1	71.7	78.2	76.6	72.7	64.0	66.6	88.8	74.5	80.6	76.5
1994	%	70.6	68.2	74.3	74.3	54.9	63.0	51.1	82.5	73.6	74.5	74.4
Study												
1974	%	15.4	15.5	14.9	13.9	25.9	23.5	NA	NA	NA	NA	NA
1979	%	20.0	20.9	17.5	19.4	22.7	23.7	26.8	6.2	13.3	13.2	19.9
1984	%	21.8	23.7	18.0	21.3	21.2	24.8	27.6	7.0	15.2	9.3	21.8
1989	%	25.9	28.3	21.8	23.4	27.3	36.0	33.4	11.2	25.5	19.4	23.5
1994	%	29.4	31.8	25.7	25.7	45.1	37.0	48.9	17.5	26.4	25.5	25.6

NOTE: Only Ph.D.s with definite commitments are included. "All Definite Commitments" includes recipients who reported definite commitments but not type of plans (employment or study). Percentages are based on the number of Ph.D.s who reported a definite commitment and a type of plan. See technical notes in Appendix C for rates of nonresponse to the applicable questions and for further explanation of postgraduation plans.

*Race/ethnicity was not available in 1974. "Asians" includes Pacific Islanders. "Native Americans" includes American Indians and Alaskan Natives.

SOURCE: National Research Council, Survey of Earned Doctorates.

TABLE 17 Postdoctoral Location of Non-U.S. Citizen Doctorate Recipients with Postgraduation Commitments, by Visa Status for Selected Years, 1974-1994

		All Non-U.S. Citizens	Permanent Visas	Temporary Visas
All Definite Commitments				
1974	N	3,257	1,076	2,181
1979	N	3,242	820	2,422
1984	N	3,665	686	2,979
1989	N	5,170	948	4,222
1994	N	6,782	1,808	4,974
Definite Commitments with Responses to Location				
1974	N	3,163	1,028	2,135
1979	N	3,061	767	2,294
1984	N	3,375	624	2,751
1989	N	4,656	854	3,802
1994	N	6,727	1,795	4,932
U.S. Location				
1974	%	51.8	89.9	33.5
1979	%	51.8	92.6	38.2
1984	%	53.3	93.4	44.2
1989	%	62.8	85.8	57.6
1994	%	61.9	89.6	51.9
Foreign Location				
1974	%	48.2	10.1	66.5
1979	%	48.2	7.4	61.8
1984	%	46.7	6.6	55.8
1989	%	37.2	14.2	42.4
1994	%	38.1	10.4	48.1

NOTE: Only non-U.S. citizen Ph.D.s with definite commitments are included. "All Definite Commitments" includes recipients who reported definite commitments but not location (U.S. or foreign). Percentages are based on the number of Ph.D.s who reported a definite commitment and a location. See technical notes in Appendix C for rates of nonresponse to the applicable questions and for further explanation of postgraduation plans.

SOURCE: National Research Council, Survey of Earned Doctorates.

TABLE 18 Postdoctoral Location of Non-U.S. Citizen Doctorate Recipients with Postgraduation Commitments, by Major Field and Visa Status, 1994

Field of Doctorate (responses only)	Postdoctoral Location: Permanent Visas — Resp. to Location/ Type of Plans (N)	U.S. Location Empl. (%)	U.S. Location Study (%)	Foreign Location Empl. (%)	Foreign Location Study (%)	Postdoctoral Location: Temporary Visas — Resp. to Location/ Type of Plans (N)	U.S. Location Empl. (%)	U.S. Location Study (%)	Foreign Location Empl. (%)	Foreign Location Study (%)
All Fields	1,785	46.9	42.7	8.2	2.2	4,893	24.6	27.5	38.7	9.2
Physical Sciences	438	41.3	52.7	3.0	3.0	1,171	22.7	40.8	21.3	15.1
Physics/Astronomy	102	24.5	67.6	2.9	4.9	275	10.2	54.2	9.8	25.8
Chemistry	152	25.7	71.1	1.3	2.0	364	12.4	61.0	11.5	15.1
Earth, Atmos., Marine	63	38.1	54.0	3.2	4.8	111	13.5	33.3	42.3	10.8
Mathematics	57	68.4	22.8	5.3	3.5	226	33.6	22.1	31.4	12.8
Computer Sciences	64	84.4	10.9	4.7	0.0	195	52.3	10.3	32.3	5.1
Engineering	339	65.5	23.0	10.3	1.2	1,172	33.5	21.6	39.2	5.7
Life Sciences	526	15.2	78.1	3.6	3.0	1,051	7.2	49.9	32.6	10.3
Biological Sciences	430	10.7	85.1	1.4	2.8	651	5.5	67.3	15.1	12.1
Health Sciences	46	50.0	39.1	10.9	0.0	118	23.7	17.8	52.5	5.9
Agricultural Sciences	50	22.0	54.0	16.0	8.0	282	4.3	23.0	64.9	7.8
Social Sciences*	170	69.4	13.5	14.7	2.4	579	30.6	8.6	53.2	7.6
Psychology	44	56.8	27.3	11.4	4.5	82	17.1	34.1	30.5	18.3
Economics	53	79.2	3.8	17.0	0.0	231	39.8	3.5	53.2	3.5
Poli. Sci./Int'l. Relat.	19	68.4	5.3	21.1	5.3	84	27.4	4.8	63.1	4.8
Sociology	12	83.3	8.3	8.3	0.0	49	34.7	12.2	44.9	8.2
Humanities	144	79.9	6.2	13.2	0.7	309	39.8	7.1	46.9	6.1
Education	87	60.9	9.2	28.7	1.1	256	15.6	3.9	71.5	9.0
Professional/Other*	81	84.0	2.5	13.6	0.0	355	36.3	2.8	57.5	3.4
Business & Mgmt.	50	86.0	0.0	14.0	0.0	222	46.4	1.8	49.5	2.3

NOTE: Only Ph.D.s with definite commitments are included; see Table 17 for numbers of non-U.S. citizens with commitments. Numbers in this table represent those Ph.D.s who responded to both postdoctoral location and type of plans; percentages are based on these numbers. See technical notes in Appendix C for rates of nonresponse to these questions and for further explanation of postgraduation plans.

*Totals include other fields not shown.

SOURCE: National Research Council, Survey of Earned Doctorates.

TABLE 19 Employment Sector of Doctorate Recipients with Postgraduation Commitments in the United States, by Broad Field for Selected Years, 1974-1994 (U.S. citizens and permanent residents)

		All Fields	Physical Sci.*	Engi-neering	Life Sci.	Social Sci.	Human-ities	Educa-tion	Prof./ Other
All Employment Commitments									
1974	N	16,601	1,802	1,495	1,586	3,287	2,760	4,590	1,081
1979	N	14,880	1,754	1,157	1,373	3,088	1,943	4,434	1,131
1984	N	13,767	1,527	977	1,294	2,814	1,708	4,283	1,164
1989	N	13,836	1,539	1,301	1,445	2,673	1,775	3,865	1,238
1994	N	13,887	1,413	1,312	1,346	2,590	2,013	3,933	1,280
Employment Commitments with Responses to Sector									
1974	N	16,531	1,795	1,492	1,580	3,272	2,754	4,557	1,081
1979	N	14,779	1,746	1,154	1,366	3,061	1,933	4,395	1,124
1984	N	13,604	1,519	976	1,288	2,773	1,686	4,211	1,151
1989	N	13,684	1,536	1,294	1,431	2,629	1,755	3,812	1,227
1994	N	13,665	1,398	1,301	1,321	2,532	1,988	3,855	1,270
Academe†									
1974	%	62.1	45.1	20.8	61.6	67.8	88.8	58.0	80.6
1979	%	54.4	34.1	24.4	59.6	55.6	79.2	52.3	73.5
1984	%	48.9	33.7	26.8	50.3	45.9	78.3	42.7	73.0
1989	%	51.1	36.5	27.5	52.2	47.7	80.6	45.3	76.0
1994	%	52.4	39.4	20.1	51.4	52.2	84.7	44.9	73.1
Industry/Self-Employed									
1974	%	12.9	34.8	55.3	16.3	6.0	2.4	2.2	6.1
1979	%	17.1	49.7	56.2	19.4	11.6	4.9	4.5	8.1
1984	%	19.4	51.6	53.6	26.5	17.8	6.2	6.6	9.5
1989	%	20.6	50.9	56.0	25.1	18.4	5.5	7.0	8.9
1994	%	19.6	47.0	61.3	24.1	17.4	4.5	6.4	10.4
Government									
1974	%	12.1	17.0	19.4	16.5	15.0	2.8	11.4	5.8
1979	%	13.1	13.9	17.1	15.2	18.4	4.6	12.3	8.9
1984	%	12.1	13.2	17.6	16.8	15.4	4.1	11.5	6.3
1989	%	10.7	10.8	14.6	15.0	15.5	2.8	10.1	4.6
1994	%	9.3	10.7	16.4	15.4	13.2	2.3	6.6	5.7
Other‡									
1974	%	12.9	3.2	4.5	5.6	11.3	6.1	28.4	7.5
1979	%	15.4	2.4	2.3	5.8	14.4	11.3	30.9	9.5
1984	%	19.6	1.5	1.9	6.4	20.8	11.4	39.1	11.2
1989	%	17.6	1.8	1.9	7.7	18.4	11.1	37.6	10.5
1994	%	18.7	2.9	2.2	9.1	17.3	8.6	42.1	10.7

NOTE: Only Ph.D.s with definite commitments for employment are included. Foreign locations are excluded. "All Employment Commitments" includes recipients whose employment sector is unreported; percentages are based on the number of Ph.D.s who did report employment commitments in a specific sector. See technical notes in Appendix C for rates of nonresponse to this question and for further explanation of postgraduation plans.

*Includes mathematics and computer sciences.
†Academe includes two- and four-year colleges and universities and medical schools. Elementary and secondary schools are included in "Other."
‡"Other" is mainly composed of elementary and secondary schools and nonprofit organizations.

SOURCE: National Research Council, Survey of Earned Doctorates.

TABLE 20 Employment Sector of Doctorate Recipients with Postgraduation Commitments in the United States, by Demographic Group for Selected Years, 1974-1994

		U.S. Citizens & Permanent Residents*										
		All Ph.D.s	Men	Women	Asians	Blacks	His-panics	Native Amers.	Whites	U.S. Cits.	Perm. Visas	Temp. Visas
All Employment Commitments												
1974	N	16,601	13,546	3,055	NA	NA	NA	NA	NA	15,903	698	374
1979	N	14,880	10,566	4,314	505	629	286	45	12,755	14,301	579	470
1984	N	13,767	8,567	5,200	430	613	323	39	12,163	13,264	503	646
1989	N	13,836	7,849	5,987	499	550	349	54	12,190	13,257	579	1,031
1994	N	13,887	7,377	6,510	820	636	460	70	11,849	13,048	839	1,198
Employment Commitments with Responses to Sector												
1974	N	16,531	13,491	3,040	NA	NA	NA	NA	NA	15,836	695	374
1979	N	14,779	10,502	4,277	502	618	286	45	12,680	14,205	574	469
1984	N	13,604	8,505	5,099	423	598	317	38	12,040	13,111	493	646
1989	N	13,684	7,787	5,897	491	536	341	54	12,070	13,118	566	1,031
1994	N	13,665	7,281	6,384	804	623	448	69	11,670	12,843	822	1,180
Academe†												
1974	%	62.1	59.3	74.7	NA	NA	NA	NA	NA	62.6	50.8	56.1
1979	%	54.4	51.2	62.5	31.9	60.4	70.3	60.0	54.6	54.9	42.9	54.6
1984	%	48.9	45.4	54.8	36.6	51.8	56.2	50.0	49.0	48.8	51.9	63.9
1989	%	51.1	46.9	56.6	38.7	57.3	54.5	38.9	51.2	50.8	58.1	62.9
1994	%	52.4	46.9	58.5	38.2	55.5	59.4	68.1	52.8	52.8	45.6	49.2
Industry/Self-Employed												
1974	%	12.9	14.9	4.1	NA	NA	NA	NA	NA	11.7	39.3	32.4
1979	%	17.1	20.6	8.4	51.6	7.6	8.4	6.7	16.2	15.9	46.5	33.5
1984	%	19.4	23.1	13.1	44.9	8.2	12.9	7.9	19.2	18.8	35.5	30.7
1989	%	20.6	26.0	13.5	45.6	8.4	16.4	29.6	20.1	20.1	33.4	31.2
1994	%	19.6	26.0	12.4	49.3	7.4	12.1	14.5	18.5	18.0	44.4	42.9
Government												
1974	%	12.1	13.2	7.3	NA	NA	NA	NA	NA	12.5	4.5	2.9
1979	%	13.1	14.0	11.0	10.2	15.5	13.3	11.1	13.2	13.5	4.4	3.6
1984	%	12.1	13.5	9.7	11.3	13.5	14.8	15.8	12.0	12.4	4.3	1.2
1989	%	10.7	11.8	9.3	7.3	13.1	12.3	13.0	10.7	11.1	2.3	2.2
1994	%	9.3	10.9	7.5	6.2	9.5	8.9	10.1	9.5	9.6	4.6	1.7
Other‡												
1974	%	12.9	12.6	13.8	5.1	NA	NA	NA	NA	13.2	5.5	8.6
1979	%	15.4	14.3	18.0	6.4	16.5	8.0	22.2	16.0	15.8	6.3	8.3
1984	%	19.6	18.0	22.4	7.1	26.4	16.1	26.3	19.8	20.1	8.3	4.2
1989	%	17.6	15.3	20.5	8.4	21.3	16.7	18.5	17.9	18.1	6.2	3.6
1994	%	18.7	16.2	21.6	6.3	27.6	19.6	7.2	19.2	19.6	5.4	6.2

NOTE: Only doctorates with definite commitments for employment are included. Foreign locations are excluded. "All Employment Commitments" includes recipients whose employment sector is unreported; percentages are based on the number of Ph.D.s who did report employment commitments in a specific sector. See technical notes in Appendix C for rates of nonresponse to this question and for further explanation of postgraduation plans.

*Race/ethnicity was not available in 1974. "Asians" includes Pacific Islanders. "Native Americans" includes American Indians and Alaskan Natives.
†Academe includes two- and four-year colleges and universities and medical schools. Elementary and secondary schools are included in "Other."
‡"Other" is mainly composed of elementary and secondary schools and nonprofit organizations.
SOURCE: National Research Council, Survey of Earned Doctorates.

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APPENDIX A: The Seven Basic Tables, 1994

Appendix A includes the following seven tables:

A-1 Number of Doctorate Recipients, by Gender and Subfield, 1994
A-2 Number of Doctorate Recipients, by Citizenship, Race/Ethnicity, and Subfield, 1994
A-3 Statistical Profile of Doctorate Recipients, by Major Field, 1994
A-4 Statistical Profile of Doctorate Recipients, by Race/Ethnicity and Citizenship, 1994
A-5 Sources of Graduate School Support for Doctorate Recipients, by Broad Field and Gender, 1994
A-6 State of Doctoral Institution of Doctorate Recipients, by Broad Field and Gender, 1994
A-7 Institutions Granting Doctorates, by Major Field, 1994

*** IMPORTANT NOTICE ***

The estimates reported for the Survey of Earned Doctorates (SED) are simple tabulations of all available information with no adjustment for nonresponse. Therefore, differences in response rates from year to year can produce numerical fluctuations that are unrelated to real trends.

Although response to the SED has been 95 to 98 percent in most years, it declined to 92 percent during the 1980s. In an effort to improve the response rate, the survey methodology was modified in the years after 1989. Response has risen as hoped, stabilizing around 95 percent during the last four years (1991 to 1994). (Note: These percentages represent *self-report rates*, i.e., the proportion of questionnaires completed by doctorate recipients. While survey forms containing partial information filled in by either the doctoral institution or staff of the National Research Council are not included in these rates, tables in this report incorporate the available data from these forms.) The self-report rate for 1994 may increase slightly in the next year if additional questionnaires are received from doctorate recipients. See page 82 in Appendix C for a table giving survey response rates from 1964 to 1994.

Item response rates have shown a parallel improvement since 1990—a natural consequence of the increase in the overall self-report rate, as well as a result of format revisions to the questionnaire and follow-ups for missing information. In 1990, new follow-up procedures were implemented to increase coverage of several variables: birth year, gender, race/ethnicity, citizenship status, country of citizenship, baccalaureate year and institution, and postgraduation plans. Response rates for these variables have since improved—especially for citizenship and race/ethnicity, resulting in an increase in the reported numbers of minority Ph.D.s. The data for a given year are updated the following year with any responses received *after* survey closure. Postsurvey adjustment was most significant for 1990 and 1991 Ph.D.s, with the largest impact on the number of blacks. For both of these years, the total number of black Ph.D.s increased by about 7.5 percent in the year after survey closure. The survey cycle was then extended to allow receipt of more follow-up information before closure, resulting in much smaller postsurvey adjustments for both 1992 and 1993 data (a 1.4 percent increase in black Ph.D.s for 1992 and only a 0.2 percent increase for 1993). The same is expected for 1994 data.

Adjustments to data are presented in reports subsequent to the initial report for a survey. Updates for 1992 appeared in *Summary Report 1993*, and those for 1993 are included in this year's report (see Appendix Table B-2 for adjustments to racial/ethnic data). The data for 1994 will likewise be subject to further revision, but as for the last two years, adjustments are expected to be minimal. Updates to 1994 data will be presented in next year's report.

In using SED data, the reader should keep in mind that numerical trends are affected by fluctuations in response rates. Increasing or decreasing numbers in a citizenship or racial/ethnic group reflect to some degree any change in both overall survey response and item response.

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TABLE A-1 and TABLE A-2: Tables A-1 and A-2 display data for the most recent year by subfield of doctorate. The subfields correspond to the fields on the questionnaire's Specialties List located at the back of this report. Field groupings may differ from those in reports published by federal sponsors of the Survey of Earned Doctorates (SED). See inside the back cover for a description of field groupings as reported in these tables. The "general" field categories—e.g., "chemistry, general"—include individuals who either received the doctorate in the general subject area or did not indicate a particular specialty field. The "other" field categories—e.g., "chemistry, other"—include individuals whose specified doctoral discipline was not among the specialty fields.

Table A-1 presents data by doctoral specialty and gender. Table A-2 displays doctoral specialty by citizenship and race/ethnicity. For a detailed description of the racial/ethnic variable, see the explanatory note for Table A-4. ***Refer to the notice on page 41 for important information on changes in response rates and their impact on time-series data.***

TABLE A-3: Table A-3 is composed of three two-page tables. The first table includes data on *all* doctorate recipients from the most recent year; the other two tables present the same data by gender. Field groupings may differ from those in reports published by federal sponsors of the SED. See inside the back cover for a description of field groupings as reported in these tables; see the questionnaire's Specialties List at the back of the report for the names and codes of the subfields included. Terms requiring definition are as follows:

- *Percentage with Master's*: The percentage of doctorate recipients in a field who received a master's degree in any field before earning the doctorate.

- *Median Age at Doctorate*: One-half received the doctorate at or before this age. A recipient's age is obtained by subtracting the month/year of birth from the month/year of doctorate. (See note at bottom of page.)

- *Median Time Lapse*: "Total Time" refers to the total calendar time elapsed between the month/year of baccalaureate and the month/year of doctorate; "Registered Time" refers to the actual time in attendance at colleges and universities between receipt of the baccalaureate and the doctorate. Enrollment includes years of attendance not related to a recipient's doctoral program.

NOTE about medians: *The method of computing medians has been revised. Beginning with Summary Report 1994,* ***months*** *(of birth, baccalaureate, and doctorate) are included in the calculations whenever available; if months are missing, only years are used in the calculations. Medians presented in all earlier reports were based only on years. Some medians would be the same regardless of the method of computation, but the new method generally computes slightly different results than are obtained by the old method. While differences are small (usually one- or two-tenths of a year), the reader should consider these differences when comparing medians presented in this report with those in earlier reports.*

Postgraduation Plans: Each year's doctorate recipients provide information on post-graduation employment or study plans in response to items 20-24 on the survey form. Since the questionnaire is filled out around the time the doctorate is awarded, a recipient's plans are subject to change. However, comparisons with the longitudinal Survey of Doctorate Recipients (SDR) have shown SED data to be a reasonable indicator of actual employment status in the year following the doctorate, although results vary by sector. (The SDR, also conducted by the National Research Council, is a follow-up employment survey of a sample of doctorate recipients in science, engineering, and humanities fields.) For a comparison of the immediate postgraduation plans of Ph.D.s in the 1992 SED with their employment status in the 1993 SDR, see the following table; refer to the footnote on page 86 in Appendix C for additional information on Ph.D.s who reported *definite* commitments at the time they completed the SED questionnaire.

COMPARISON OF PH.D.S' IMMEDIATE POSTGRADUATION PLANS IN THE 1992 SED WITH THEIR EMPLOYMENT STATUS 9-22 MONTHS LATER IN THE 1993 SDR

	Employment Status in 1993 SDR							
Plans in 1992 SED	Total	Postdoc.	Total Empl.	Acad.	Indus./ Self	Govt.	Other Empl.	Not Empl.
Postdoctoral Study *	792	59.1	34.0	19.9	9.7	1.9	2.4	6.9
Employment in								
Academe	761	2.6	92.4	85.0	4.1	0.9	2.4	5.0
Industry/Self-Empl.	385	4.7	91.7	7.5	81.0	0.8	2.3	3.6
Government	110	4.5	94.5	5.5	9.1	74.5	5.5	0.9
Other Sector	124	2.4	95.2	15.3	9.7	4.0	66.1	2.4
Unknown Sector	91	4.4	81.3	25.3	29.7	13.2	13.2	14.3
Unknown Plans	42	23.8	61.9	38.1	14.3	4.8	4.8	14.3

NOTE: SED = Survey of Earned Doctorates; SDR = Survey of Doctorate Recipients, whose sample is drawn from the SED. This table only includes the 1993 SDR's sample of Ph.D.s from the 1992 SED (total n = 2,305); all resided in the United States. The shaded percentages represent the proportions of Ph.D.s whose status in the 1993 SDR was consistent with their postgraduation plans in the 1992 SED. For example, the table shows that 85 percent of Ph.D.s who reported academic employment plans in the 1992 SED were, according to the 1993 SDR, still working in academe 9-22 months later.

* Because of the 9-22 month gap between SED graduation dates and SDR reference date, the percentage of Ph.D.s reporting postdoctoral appointments in both the 1992 SED and the 1993 SDR is understandably lower than the comparisons for the employment sectors. It is likely that many postdoctoral appointments were completed before the 1993 SDR reference date.

In Table A-3, the postgraduation plans of doctorate recipients are grouped as follows: "Postdoctoral Study Plans" (fellowship, research associateship, traineeship, other), "Planned Employment After Doctorate" (educational institution, industry, etc.), and "Postdoctoral Plans Unknown." These categories include recipients who were still negotiating or seeking positions at the time of survey completion, as well as those whose plans were definite. The sum of these lines equals 100 percent for each column, with allowance for rounding: for example, 55.7 percent of all chemists had postdoctoral study plans, 37.7 percent planned to be employed, and 6.6 percent did not report their postgraduation plans, totaling 100 percent. The study and employment rows are further subdivided. The data on study plans show that 26.1 percent of all chemists planned to pursue postdoctoral fellowships; 28.2 percent, research associateships; 0.4 percent, traineeships; and 1.0 percent, some other form of postdoctoral study. These percentages sum to 55.7 percent, the proportion of chemists who reported plans for postdoctoral study. The employment row is similarly subdivided by type of employer. The percentages for these rows add to 37.7 percent—the proportion of chemistry Ph.D.s who planned employment. The category for educational institutions includes elementary and secondary schools as well as colleges and universities, and the category for government includes military service.

The four lines of data beginning with "Definite Postdoctoral Study" distinguish between individuals who had definite postgraduation plans at the time of survey completion (item 20: "Am returning to, or continuing in, predoctoral employment" or "Have signed contract or made definite commitment") and those who were still seeking employment or postdoctoral study (item 20: "Am negotiating with one or more specific organizations," "Am seeking position but have no specific prospects," or "Other"). These four lines, when added to the prior line, "Postdoctoral Plans Unknown," total 100 percent with allowance for rounding. The two lines "Definite Postdoctoral Study" and "Seeking Postdoctoral Study" add to give the percentage for "Postdoctoral Study Plans"; the two lines "Definite Employment" and "Seeking Employment" add to give the percentage for "Planned Employment After Doctorate."

Percentages showing the distribution of doctorate recipients by postdoctoral work activity and region of employment are based only on the number of recipients who had *definite employment* commitments at the time they completed the questionnaire. These percentages exclude recipients who planned postdoctoral study (as described above) and recipients who were still *seeking* employment at the time they completed the questionnaire. (Note that the rows on specific postdoctoral study and employment plans discussed earlier include individuals whose plans were *not definite*). Revisions to the questionnaire format beginning in 1990 appear to have resulted in higher rates of nonresponse to the item on work activity in recent years (11.9 percent in 1994 compared to only 6.2 percent in 1989). However, nonresponse has dropped since 1993, when the rate was 15.1 percent.

The U.S. regions of employment shown in Table A-3 include the following states and territories:

New England:	Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont
Middle Atlantic:	New Jersey, New York, Pennsylvania
East North Central:	Illinois, Indiana, Michigan, Ohio, Wisconsin
West North Central:	Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota
South Atlantic:	Delaware, District of Columbia, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, West Virginia
East South Central:	Alabama, Kentucky, Mississippi, Tennessee
West South Central:	Arkansas, Louisiana, Oklahoma, Texas
Mountain:	Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming
Pacific & Insular:	Alaska, California, Hawaii, Oregon, Washington, American Samoa, Guam, Puerto Rico, Trust Territory, Virgin Islands

TABLE A-4: Table A-4 contains data by race/ethnicity and citizenship for selected variables included in Tables A-3 and A-5. Field groupings may differ from those in reports published by federal sponsors of the SED. See inside the back cover for a description of field groupings as reported in these tables; refer to the questionnaire's Specialties List at the back of the report for the names and codes of the subfields included. ***See the notice on page 41 for important information on changes in response rates and their impact on time-series data.***

The racial/ethnic question has undergone several revisions over the years. In 1977, it was modified to correspond to a standard question format recommended by the Federal Interagency Committee on Education and adopted by the Office of Management and Budget (OMB) for use in federally sponsored surveys; an explanation of the effect of these changes is detailed on page 13 of *Summary Report 1977*. (Note: Changes in the OMB guidelines prompted the moving of persons having origins in the Indian subcontinent from the white category to the Asian category.) In 1980, the item was further revised in two ways: (1) the Hispanic category was subdivided into Puerto Rican, Mexican American, and other Hispanic to provide more detail for users of the racial/ethnic data, and (2) respondents were asked to check only one racial category. (Before 1980, doctorate recipients could check more than one category to indicate their race.) The item was modified again in 1982 to separate the questions on race and ethnicity. Since then, respondents have been asked to first check one of the four racial group categories (American Indian, Asian, black, or white) and then indicate whether or not they are Hispanic. In Table A-4, Ph.D.s who reported Hispanic heritage, regardless of racial designation, are included in one of three Hispanic groups: Puerto Rican, Mexican American, or other Hispanic. The remaining survey respondents are then counted in the respective racial groups. (Note: Doctorate recipients who checked the category "American Indian or Alaskan Native" are identified as Native American in this report.)

NOTE about median age and time lapse (to doctorate): *The method of computing medians has been revised. Beginning with Summary Report 1994,* ***months*** *(of birth, baccalaureate, and doctorate) are included in the calculations whenever available; if months are missing, only years are used in the calculations. Medians presented in all earlier reports were based only on years. Some medians would be the same regardless of the method of computation, but the new method generally computes slightly different results than are obtained by the old method. While differences are small (usually one- or two-tenths of a year), the reader should consider these differences when comparing medians presented in this report with those in earlier reports. See note on Table A-3 for definitions.*

In the section on "Graduate School Support," a recipient counts in more than one category if support was received from multiple sources. Because a student counts once for each of his/her sources of support, the vertical percentages sum to more than 100 percent. See the explanatory note on Appendix Table A-5 for further detail. (Data on the *primary* source of support for doctorate recipients are presented in the body of the report.)

The other sections of Table A-4 correspond to many of those in Appendix Table A-3. The reader is referred to the explanatory note on Table A-3 for additional information.

TABLE A-5: Table A-5 displays data reported in item 17 on sources of financial support received during graduate school, by broad field and gender of recipient. Field groupings may differ from those in reports published by federal sponsors of the SED. See inside the back cover for a description of field groupings as reported in this table; see the questionnaire's Specialties List at the back of the report for the names and codes of the subfields included.

A recipient counts in more than one category in Table A-5 if support was received from multiple sources. Because a student counts once for each of his/her sources of support, the vertical percentages sum to more than 100 percent. (Data on the *primary* source of support for doctorate recipients are presented in the body of the report.)

Beginning with *Summary Report 1990*, federal research assistantships (RAs) have been aggregated with university RAs and shown under "University Research Assistant" in this table. (Focus groups of doctoral candidates have indicated uncertainty as to the source of their RA funding; it is therefore likely that some RAs have incorrectly identified support provided by the federal government as university rather than federal.) The reader is advised *not* to compare sources of support data presented in the 1990-1994 *Summary Reports* with data in earlier reports because percentages appear higher for university and lower for federal support in tables where all RAs are aggregated as "University Research Assistants."

The data in Table A-5 should be interpreted as follows: 169 male doctorate recipients in the physical sciences in 1994 reported financial support from federal

fellowships or traineeships during graduate school. This number is 3.3 percent of the male physical sciences Ph.D.s who answered the question on sources of support, and 14.6 percent of all males in *any* field who reported federal fellowship or traineeship support.

TABLE A-6: Table A-6 shows, by broad field and gender, the number of persons receiving a doctoraté in the most recent year from institutions in each of the 50 states, the District of Columbia, and Puerto Rico. Field groupings may differ from those in reports published by federal sponsors of the SED. See inside the back cover for a description of field groupings as reported in this table; see the questionnaire's Specialties List at the back of the report for the names and codes of the subfields included.

TABLE A-7: Table A-7 displays data by doctorate-granting institution and major field. It includes all institutions in the United States (the 50 states, the District of Columbia, and Puerto Rico) that awarded doctoral degrees in the most recent year. Field groupings may differ from those in reports published by federal sponsors of the SED and from departmental designations at institutions. See inside the back cover for a description of field groupings as reported in this table; see the questionnaire's Specialties List at the back of the report for the names and codes of the subfields included.

APPENDIX TABLE A-1 Number of Doctorate Recipients, by Gender and Subfield, 1994

Subfield of Doctorate	Number of Doctorates		
	Total	Men	Women
TOTAL ALL FIELDS	41,011	25,205	15,806
PHYSICAL SCIENCES	6,821	5,438	1,383
MATHEMATICS	1,118	882	236
Applied Mathematics	204	165	39
Algebra	74	51	23
Analysis and Functional Analysis	105	89	16
Geometry	34	30	4
Logic	29	23	6
Number Theory	36	31	5
Mathematical Statistics	204	154	50
Topology	35	25	10
Computing Theory and Practice	16	14	2
Operations Research	26	17	9
Mathematics, General	284	228	56
Mathematics, Other	71	55	16
COMPUTER SCIENCE	904	767	137
Computer Science	834	716	118
Information Sciences and Systems	70	51	19
PHYSICS AND ASTRONOMY	1,692	1,492	200
Astronomy	65	56	9
Astrophysics	78	62	16
Acoustics	20	18	2
Chemical and Atomic/Molecular	140	123	17
Elementary Particles	176	160	16
Fluids	12	11	1
Nuclear	90	81	9
Optics	104	90	14
Plasma and High-Temperature	79	71	8
Polymer	29	25	4
Solid State and Low-Temperature	388	335	53
Physics, General	343	313	30
Physics, Other	168	147	21
CHEMISTRY	2,254	1,630	624
Analytical	333	232	101
Inorganic	262	175	87
Nuclear	10	10	0
Organic	543	415	128
Medicinal/Pharmaceutical	102	76	26
Physical	333	240	93
Polymer	117	94	23
Theoretical	52	35	17
Chemistry, General	447	321	126
Chemistry, Other	55	32	23
EARTH, ATMOS., & MARINE SCI.	853	667	186
Atmospheric Physics and Chemistry	27	22	5
Atmospheric Dynamics	27	18	9
Meteorology	32	24	8
Atmos. Sci./Meteorology, General	37	33	4
Atmos. Sci./Meteorology, Other	6	6	0
Geology	194	162	32
Geochemistry	59	49	10
Geophysics and Seismology	106	82	24
Paleontology	17	15	2
Mineralogy, Petrology	21	15	6
Stratigraphy, Sedimentation	27	23	4
Geomorphology and Glacial Geology	13	11	2
Geological & Related Sci., General	18	17	1
Geological & Related Sci., Other	24	13	11
Environmental Science	61	37	24
Hydrology and Water Resources	30	27	3
Oceanography	91	64	27
Marine Sciences	34	23	11
Misc. Physical Sciences, Other	29	26	3
ENGINEERING	5,826	5,191	635
Aerospace, Aeronautic., Astronautic.	230	219	11
Agricultural	89	79	10
Bioengineering and Biomedical	175	130	45
Ceramic Sciences	39	30	9
Chemical	630	529	101
Civil	602	546	56
Communications	33	28	5
Computer	202	177	25
Electrical, Electronics	1,440	1,323	117
Engineering Mechanics	132	123	9
Engineering Physics	17	14	3
Engineering Science	46	43	3
Environmental Health Engineering	82	58	24
Industrial/Manufacturing	228	195	33
Materials Science	433	364	69
Mechanical	883	823	60
Metallurgical	67	62	5
Mining and Mineral	23	20	3
Nuclear	85	77	8
Ocean	29	27	2
Operations Research	47	40	7
Petroleum	42	39	3
Polymer/Plastics	53	44	9
Systems	51	46	5
Engineering, General	39	35	4
Engineering, Other	129	120	9
LIFE SCIENCES	7,734	4,516	3,218
BIOLOGICAL SCIENCES	5,197	3,092	2,105
Biochemistry	805	484	321
Biophysics	123	90	33
Biotechnology Research	14	12	2
Bacteriology	18	7	11
Plant Genetics	30	25	5
Plant Pathology	40	29	11
Plant Physiology	70	49	21
Botany, Other	117	71	46
Anatomy	66	37	29
Biometrics and Biostatistics	71	38	33
Cell Biology	236	135	101
Ecology	201	131	70
Developmental Biology/Embryology	62	30	32
Endocrinology	26	18	8
Entomology	123	95	28
Biological Immunology	161	87	74
Molecular Biology	597	330	267
Microbiology	423	246	177
Neuroscience	284	155	129
Nutritional Sciences	147	45	102
Parasitology	22	13	9
Toxicology	119	70	49
Human and Animal Genetics	203	116	87
Human and Animal Pathology	129	83	46
Human and Animal Pharmacology	256	152	104
Human and Animal Physiology	287	181	106
Zoology, Other	117	85	32
Biological Sciences, General	289	172	117
Biological Sciences, Other	161	106	55
HEALTH SCIENCES	1,297	453	844
Speech-Lang. Pathology & Audiology	95	17	78
Environmental Health	51	31	20
Health Systems/Services Admin.	53	23	30
Public Health	143	50	93
Epidemiology	168	61	107
Exercise Physiology/Sci., Kinesiology	87	54	33
Nursing	336	20	316
Pharmacy	148	80	68
Rehabilitation/Therapeutic Services	43	17	26
Veterinary Medicine	56	45	11
Health Sciences, General	41	21	20
Health Sciences, Other	76	34	42
AGRICULTURAL SCIENCES	1,240	971	269
Agricultural Economics	162	142	20
Animal Breeding and Genetics	17	14	3
Animal Nutrition	58	48	10
Dairy Science	11	10	1
Poultry Science	21	16	5
Fisheries Science and Management	48	37	11
Animal Sciences, Other	86	61	25
Agronomy and Crop Science	143	126	17
Plant Breeding and Genetics	81	68	13
Plant Pathology	55	35	20
Plant Sciences, Other	24	15	9
Food Distribution	1	1	0
Food Engineering	16	14	2
Food Sciences, Other	152	83	69
Soil Chemistry/Microbiology	21	17	4
Soil Sciences, Other	69	63	6
Horticulture Science	65	51	14

NOTE: Field groupings may differ from those in reports published by federal sponsors of the Survey of Earned Doctorates. See inside the back cover for a description of fields as reported in this table. Refer also to the explanatory note about this table in front of Appendix A.

APPENDIX TABLE A-1 (Continued)

Subfield of Doctorate	Number of Doctorates		
	Total	Men	Women
Forest Biology	20	14	6
Forest Management	17	15	2
Wood Sci. and Pulp/Paper Tech.	26	20	6
Conservation/Renewable Nat. Res.	21	15	6
Forestry and Related Sci., Other	59	53	6
Wildlife/Range Management	52	39	13
Agricultural Sciences, General	4	4	0
Agricultural Sciences, Other	11	10	1
SOCIAL SCIENCES (INCL. PSYCH.)	6,624	3,349	3,275
Anthropology	384	176	208
Area Studies	34	17	17
Criminology	41	29	12
Demography/Population Studies	23	11	12
Economics	914	688	226
Econometrics	26	22	4
Geography	146	111	35
Human/Individual & Family Develop.	129	26	103
International Relations/Affairs	114	90	24
Political Science and Government	589	416	173
Public Policy Analysis	93	55	38
Sociology	524	254	270
Statistics	46	30	16
Urban Affairs/Studies	132	89	43
Social Sciences, General	21	12	9
Social Sciences, Other	148	68	80
PSYCHOLOGY	3,260	1,255	2,005
Clinical	1,289	443	846
Cognitive and Psycholinguistics	129	73	56
Comparative	8	1	7
Counseling	496	187	309
Developmental and Child	181	47	134
Experimental	140	68	72
Educational	69	30	39
Industrial and Organizational	137	68	69
Personality	19	7	12
Physiological/Psychobiology	93	41	52
Psychometrics	5	4	1
Quantitative	17	9	8
School	84	31	53
Social	153	53	100
Psychology, General	284	125	159
Psychology, Other	156	68	88
HUMANITIES	4,743	2,479	2,264
History, American	310	193	117
History, European	180	118	62
History/Philosophy of Sci. & Tech.	26	16	10
History, General	140	84	56
History, Other	144	94	50
Classics	84	48	36
Comparative Literature	163	70	93
Linguistics	221	87	134
Speech and Rhetorical Studies	142	64	78
Letters, General	22	7	15
Letters, Other	25	8	17
American Studies	88	40	48
Archeology	34	17	17
Art History/Criticism/Conservation	182	69	113
Music	685	431	254
Philosophy	302	219	83
Religion	252	193	59
Drama/Theater Arts	102	50	52
LANGUAGE AND LITERATURE	1,538	625	913
American	296	141	155
English	647	267	380
French	129	37	92
German	67	30	37
Italian	32	12	20
Spanish	212	60	152
Russian	38	18	20
Slavic	10	5	5
Chinese	25	16	9
Japanese	12	5	7
Hebrew	11	7	4
Arabic	4	3	1
Other Language and Literature	55	24	31
Humanities, General	31	16	15
Humanities, Other	72	30	42

Subfield of Doctorate	Number of Doctorates		
	Total	Men	Women
EDUCATION	6,683	2,610	4,073
Curriculum and Instruction	816	250	566
Educational Admin. and Supervision	1,205	580	625
Educational Leadership	780	349	431
Educ./Instruct. Media Design	111	55	56
Educ. Stat./Research Methods	68	27	41
Educ. Assess., Test., & Meas.	28	13	15
Educational Psychology	311	113	198
School Psychology	97	38	59
Social/Phil. Found. of Educ.	140	58	82
Special Education	241	42	199
Counseling Educ./Couns. & Guidance	282	110	172
Higher Educ./Evaluation & Research	428	161	267
Pre-elementary/Early Childhood	90	7	83
Elementary Education	71	14	57
Secondary Education	24	9	15
Adult and Continuing Education	215	84	131
TEACHING FIELDS	960	430	530
Agricultural Education	52	44	8
Art Education	33	10	23
Business Education	25	8	17
English Education	56	18	38
Foreign Languages Education	54	16	38
Health Education	97	33	64
Home Economics Education	11	0	11
Technical/Industrial Arts Education	20	17	3
Mathematics Education	74	33	41
Music Education	89	44	45
Nursing Education	24	4	20
Physical Education and Coaching	139	81	58
Reading Education	97	13	84
Science Education	85	48	37
Social Science Education	10	5	5
Technical Education	30	19	11
Trade and Industrial Education	24	20	4
Teacher Ed./Spec. Acad. & Voc., Other	40	17	23
Education, General	484	155	329
Education, Other	332	115	217
PROFESSIONAL/OTHER FIELDS	2,580	1,622	958
BUSINESS AND MANAGEMENT	1,285	920	365
Accounting	178	116	62
Banking/Financial Support Services	134	107	27
Business Admin. and Management	322	250	72
Business/Managerial Economics	40	34	6
International Business	22	18	4
Mgmt. Info. Sys./Bus. Data Proc.	117	91	26
Marketing Management and Research	167	112	55
Operations Research	54	44	10
Organizational Behavior	102	47	55
Bus. Mgmt./Admin. Serv., General	87	66	21
Bus. Mgmt./Admin. Serv., Other	62	35	27
COMMUNICATIONS	371	185	186
Communications Research	40	19	21
Mass Communications	156	88	68
Communication Theory	45	17	28
Communications, General	68	27	41
Communications, Other	62	34	28
OTHER PROFESSIONAL FIELDS	885	493	392
Architectural Environmental Design	67	50	17
Home Economics	31	2	29
Law	33	24	9
Library Science	41	11	30
Parks/Recreation/Leisure/Fitness	37	22	15
Public Administration	134	87	47
Social Work	272	82	190
Theology/Religious Education	258	210	48
Professional Fields, General	1	1	0
Professional Fields, Other	11	4	7
OTHER FIELDS	39	24	15

SOURCE: National Research Council, Survey of Earned Doctorates.

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APPENDIX TABLE A-2 Number of Doctorate Recipients, by Citizenship, Race/Ethnicity, and Subfield, 1994

Subfield of Doctorate	Total Doctorates*	Non-U.S. Citizens Temp. Visas	U.S. Citizens and Non-U.S. with Permanent Visas								
			Total	Native Amer.	Asian	Black	White	Puerto Rican	Mexican Amer.	Other Hispanic	Unkn. Race
TOTAL ALL FIELDS	41,011	9,393	30,846	142	3,540	1,270	24,566	256	306	464	302
PHYSICAL SCIENCES	6,821	2,085	4,587	10	945	73	3,398	31	34	53	43
MATHEMATICS	1,118	437	647	2	141	11	471	1	4	8	9
Applied Mathematics	204	73	131	0	28	1	99	0	0	2	1
Algebra	74	22	52	0	2	2	46	0	0	0	2
Analysis and Functional Analysis	105	47	58	0	11	1	46	0	0	0	0
Geometry	34	11	23	0	7	1	13	0	0	2	0
Logic	29	9	20	0	0	2	17	0	1	0	0
Number Theory	36	11	25	0	4	0	19	1	0	1	0
Mathematical Statistics	204	89	114	1	36	2	72	0	1	0	2
Topology	35	10	25	1	6	0	16	0	0	1	1
Computing Theory and Practice	16	8	8	0	3	0	5	0	0	0	0
Operations Research	26	8	18	0	6	0	10	0	1	0	1
Mathematics, General	284	129	122	0	30	2	85	0	1	2	2
Mathematics, Other	71	20	51	0	8	0	43	0	0	0	0
COMPUTER SCIENCE	904	344	543	1	117	10	401	4	2	1	7
Computer Science	834	328	489	1	112	9	353	4	2	1	7
Information Sciences and Systems	70	16	54	0	5	1	48	0	0	0	0
PHYSICS AND ASTRONOMY	1,692	504	1,155	2	265	11	832	7	5	19	14
Astronomy	65	14	51	0	5	0	42	0	0	1	3
Astrophysics	78	18	60	0	5	0	54	0	1	0	0
Acoustics	20	5	15	0	3	0	12	0	0	0	0
Chemical and Atomic/Molecular	140	38	102	0	23	1	73	1	0	4	0
Elementary Particles	176	67	109	0	13	1	92	0	0	3	0
Fluids	12	2	10	0	1	0	9	0	0	0	0
Nuclear	90	14	76	0	15	0	60	0	0	1	0
Optics	104	21	83	0	21	1	58	0	1	2	0
Plasma and High-Temperature	79	18	60	1	13	1	44	0	0	1	0
Polymer	29	13	16	0	4	1	9	1	1	0	0
Solid State and Low-Temperature	388	135	253	0	84	3	156	3	1	3	3
Physics, General	343	111	202	0	50	2	140	1	1	2	6
Physics, Other	168	48	118	1	28	1	83	1	0	2	2
CHEMISTRY	2,254	597	1,613	4	330	34	1,178	19	19	21	8
Analytical	333	58	275	0	46	6	213	3	3	4	0
Inorganic	262	51	203	0	33	4	163	1	0	2	0
Nuclear	10	0	10	0	0	0	10	0	0	0	0
Organic	543	139	397	1	75	6	295	7	8	5	0
Medicinal/Pharmaceutical	102	26	76	0	19	3	52	1	0	1	0
Physical	333	88	240	0	60	3	169	2	1	2	3
Polymer	117	37	80	1	21	3	54	0	1	0	0
Theoretical	52	13	39	1	2	1	33	1	1	0	0
Chemistry, General	447	166	258	1	66	8	164	4	3	7	5
Chemistry, Other	55	19	35	0	8	0	25	0	2	0	0
EARTH, ATMOS., & MARINE SCI.	853	203	629	1	92	7	516	0	4	4	5
Atmospheric Physics and Chemistry	27	4	22	0	4	0	18	0	0	0	0
Atmospheric Dynamics	27	4	23	0	10	0	13	0	0	0	0
Meteorology	32	8	23	0	7	0	16	0	0	0	0
Atmos. Sci./Meteorology, General	37	18	18	0	2	1	15	0	0	0	0
Atmos. Sci./Meteorology, Other	6	1	5	0	2	0	3	0	0	0	0
Geology	194	39	153	0	10	1	137	0	2	1	2
Geochemistry	59	9	50	0	13	2	34	0	0	0	1
Geophysics and Seismology	106	24	77	0	20	1	52	0	1	2	1
Paleontology	17	1	16	0	2	0	14	0	0	0	0
Mineralogy, Petrology	21	4	17	0	4	0	13	0	0	0	0
Stratigraphy, Sedimentation	27	3	24	1	1	0	21	0	0	0	1
Geomorphology and Glacial Geology	13	0	13	0	0	0	13	0	0	0	0
Geological & Related Sci., General	18	7	11	0	1	0	10	0	0	0	0
Geological & Related Sci., Other	24	9	15	0	0	0	14	0	0	1	0
Environmental Science	61	16	44	0	2	1	41	0	0	0	0
Hydrology and Water Resources	30	9	20	0	3	0	16	0	1	0	0
Oceanography	91	30	57	0	7	0	50	0	0	0	0
Marine Sciences	34	10	24	0	1	0	23	0	0	0	0
Misc. Physical Sciences, Other	29	7	17	0	3	1	13	0	0	0	0
ENGINEERING	5,826	2,656	3,050	6	868	54	2,016	10	15	41	40
Aerospace, Aeronautic., Astronautic.	230	96	130	1	23	1	100	0	2	1	2
Agricultural	89	48	41	1	9	0	28	1	0	1	1
Bioengineering and Biomedical	175	47	126	1	22	0	98	2	0	1	2
Ceramic Sciences	39	18	21	0	3	0	17	0	0	0	1
Chemical	630	287	335	1	79	8	234	2	1	2	8
Civil	602	358	238	0	57	6	161	1	1	10	2
Communications	33	16	17	0	7	0	8	0	0	2	0
Computer	202	103	96	0	36	1	58	0	1	0	0

NOTE: Field groupings may differ from those in reports published by federal sponsors of the Survey of Earned Doctorates. See inside the back cover for a description of fields as reported in this table. Refer also to the explanatory note about this table in front of Appendix A.

*Includes individuals who did not report their citizenship at time of doctorate.

APPENDIX TABLE A-2 (Continued)

Subfield of Doctorate	Total Doctorates*	Non-U.S. Citizens Temp. Visas	U.S. Citizens and Non-U.S. with Permanent Visas								
			Total	Native Amer.	Asian	Black	White	Puerto Rican	Mex-ican Amer.	Other His-panic	Unkn. Race
Electrical, Electronics	1,440	618	786	1	262	16	481	3	3	12	8
Engineering Mechanics	132	66	64	0	26	0	38	0	0	0	0
Engineering Physics	17	5	12	0	3	0	9	0	0	0	0
Engineering Science	46	20	26	0	8	0	17	0	0	1	0
Environmental Health Engineering	82	27	54	0	12	2	38	0	1	1	0
Industrial/Manufacturing	228	109	119	0	29	6	83	0	1	0	0
Materials Science	433	186	241	1	71	2	161	0	3	1	2
Mechanical	883	393	471	0	153	7	296	1	2	5	7
Metallurgical	67	29	35	0	8	1	24	0	0	0	2
Mining and Mineral	23	10	13	0	6	1	6	0	0	0	0
Nuclear	85	42	42	0	8	0	32	0	0	1	1
Ocean	29	16	11	0	4	0	6	0	0	0	1
Operations Research	47	23	24	0	4	2	18	0	0	0	0
Petroleum	42	24	18	0	8	0	9	0	0	1	0
Polymer/Plastics	53	25	27	0	9	0	16	0	0	1	1
Systems	51	19	31	0	7	0	23	0	0	1	0
Engineering, General	39	17	19	0	6	0	12	0	0	0	1
Engineering, Other	129	54	53	0	8	1	43	0	0	0	1
LIFE SCIENCES	7,734	1,829	5,820	24	903	147	4,505	39	41	102	59
BIOLOGICAL SCIENCES	5,197	1,056	4,083	16	720	75	3,106	28	30	72	36
Biochemistry	805	181	615	2	149	12	433	5	4	5	5
Biophysics	123	27	96	1	24	0	66	0	1	4	0
Biotechnology Research	14	5	9	0	2	0	7	0	0	0	0
Bacteriology	18	2	16	0	0	0	16	0	0	0	0
Plant Genetics	30	9	21	0	4	0	16	0	0	1	0
Plant Pathology	40	22	18	0	4	1	13	0	0	0	0
Plant Physiology	70	21	49	0	15	0	34	0	0	0	0
Botany, Other	117	27	90	0	8	1	77	0	0	2	2
Anatomy	66	13	52	0	11	3	35	0	0	2	1
Biometrics and Biostatistics	71	17	54	0	15	1	36	1	0	1	0
Cell Biology	236	36	200	2	31	3	154	3	1	5	1
Ecology	201	37	161	0	10	0	145	0	3	1	2
Developmental Biology/Embryology	62	8	54	0	6	1	45	0	1	1	0
Endocrinology	26	9	17	0	1	0	16	0	0	0	0
Entomology	123	39	84	0	9	3	68	1	0	2	1
Biological Immunology	161	17	143	0	14	4	119	1	2	3	0
Molecular Biology	597	111	484	1	97	4	361	3	5	6	7
Microbiology	423	97	324	0	52	5	250	5	1	8	3
Neuroscience	284	42	239	1	33	4	191	3	1	3	3
Nutritional Sciences	147	44	101	2	15	4	75	0	0	4	1
Parasitology	22	3	19	0	2	2	15	0	0	0	0
Toxicology	119	21	97	1	12	0	82	1	1	0	0
Human and Animal Genetics	203	42	160	1	25	2	123	1	3	1	4
Human and Animal Pathology	129	27	100	1	23	2	71	0	0	3	0
Human and Animal Pharmacology	256	41	213	0	50	10	149	0	1	2	1
Human and Animal Physiology	287	53	229	0	37	7	176	0	3	5	1
Zoology, Other	117	16	101	1	5	0	90	1	0	3	1
Biological Sciences, General	289	56	212	1	38	4	155	1	3	7	3
Biological Sciences, Other	161	33	125	2	28	2	88	2	0	3	0
HEALTH SCIENCES	1,297	229	1,050	6	94	46	867	6	5	14	12
Speech-Lang. Pathology & Audiology	95	10	85	1	6	6	71	1	0	0	0
Environmental Health	51	17	34	0	5	1	26	0	0	0	2
Health Systems/Services Admin.	53	3	50	1	4	1	38	3	0	2	1
Public Health	143	20	118	1	11	9	96	0	0	1	0
Epidemiology	168	18	150	1	13	4	125	0	3	3	1
Exercise Physiology/Sci., Kinesiology	87	19	66	0	3	1	60	0	0	1	1
Nursing	336	27	306	2	6	13	281	0	2	1	1
Pharmacy	148	64	82	0	32	3	47	0	0	0	0
Rehabilitation/Therapeutic Services	43	4	39	0	2	2	34	1	0	0	0
Veterinary Medicine	56	23	32	0	1	1	28	0	0	2	0
Health Sciences, General	41	5	35	0	1	1	26	1	0	1	5
Health Sciences, Other	76	19	53	0	10	4	35	0	0	3	1
AGRICULTURAL SCIENCES	1,240	544	687	2	89	26	532	5	6	16	11
Agricultural Economics	162	91	71	1	17	4	45	0	0	2	2
Animal Breeding and Genetics	17	6	10	0	0	0	9	1	0	0	0
Animal Nutrition	58	20	38	0	1	4	30	0	1	2	0
Dairy Science	11	2	9	0	2	0	6	0	0	0	1
Poultry Science	21	5	15	0	3	2	10	0	0	0	0
Fisheries Science and Management	48	12	35	0	2	0	32	0	1	0	0
Animal Sciences, Other	86	29	57	0	4	2	48	1	1	1	0
Agronomy and Crop Science	143	77	65	0	4	2	55	0	0	4	0
Plant Breeding and Genetics	81	46	35	0	4	2	28	0	0	0	1
Plant Pathology	55	24	30	0	5	1	20	1	1	1	1
Plant Sciences, Other	24	7	16	0	3	0	10	1	1	0	1
Food Distribution	1	0	1	0	0	0	1	0	0	0	0
Food Engineering	16	9	7	0	1	0	5	0	0	1	0
Food Sciences, Other	152	75	76	0	15	4	53	0	1	2	1
Soil Chemistry/Microbiology	21	8	13	1	2	1	9	0	0	0	0

APPENDIX TABLE A-2 (Continued)

Subfield of Doctorate	Total Doctorates*	Non-U.S. Citizens Temp. Visas	U.S. Citizens and Non-U.S. with Permanent Visas								
			Total	Native Amer.	Asian	Black	White	Puerto Rican	Mex-ican Amer.	Other His-panic	Unkn. Race
Soil Sciences, Other	69	32	37	0	9	1	25	0	0	1	1
Horticulture Science	65	31	33	0	7	1	24	1	0	0	0
Forest Biology	20	5	15	0	0	0	15	0	0	0	0
Forest Management	17	7	10	0	0	0	10	0	0	0	0
Wood Sci. and Pulp/Paper Tech.	26	12	13	0	5	0	8	0	0	0	0
Conservation/Renewable Nat. Res.	21	6	15	0	0	0	14	0	0	1	0
Forestry and Related Sci., Other	59	26	33	0	4	0	27	0	0	0	2
Wildlife/Range Management	52	7	45	0	1	1	41	0	0	1	1
Agricultural Sciences, General	4	3	1	0	0	0	1	0	0	0	0
Agricultural Sciences, Other	11	4	7	0	0	1	6	0	0	0	0
SOCIAL SCIENCES (INCL. PSYCH.)	6,624	1,045	5,391	27	325	251	4,533	55	57	82	61
Anthropology	384	50	329	6	17	13	280	1	2	4	6
Area Studies	34	13	20	0	2	3	11	0	1	1	2
Criminology	41	5	36	0	2	6	27	0	1	0	0
Demography/Population Studies	23	10	13	0	3	0	9	0	0	0	1
Economics	914	398	483	0	74	19	375	1	1	11	2
Econometrics	26	13	13	0	3	0	10	0	0	0	0
Geography	146	37	105	0	17	0	84	1	0	1	2
Human/Individual & Family Develop.	129	15	112	1	4	3	100	0	0	2	2
International Relations/Affairs	114	24	84	2	6	6	65	0	0	5	0
Political Science and Government	589	118	446	2	33	30	357	5	4	5	10
Public Policy Analysis	93	17	76	0	4	7	63	0	1	1	0
Sociology	524	107	406	4	35	26	324	4	5	3	5
Statistics	46	29	16	0	7	0	9	0	0	0	0
Urban Affairs/Studies	132	47	78	1	5	10	57	0	0	1	4
Social Sciences, General	21	3	18	0	1	1	15	0	1	0	0
Social Sciences, Other	148	23	123	0	7	6	108	0	1	0	1
PSYCHOLOGY	3,260	136	3,033	11	105	121	2,639	43	40	48	26
Clinical	1,289	19	1,224	4	41	31	1,087	14	21	23	3
Cognitive and Psycholinguistics	129	14	114	1	12	3	94	0	1	3	0
Comparative	8	0	5	0	0	0	3	1	0	1	0
Counseling	496	9	484	4	9	32	420	2	8	8	1
Developmental and Child	181	12	169	0	5	6	149	2	2	3	2
Experimental	140	14	126	1	4	1	116	2	1	1	0
Educational	69	2	65	0	1	3	57	2	0	1	1
Industrial and Organizational	137	3	134	0	3	13	112	5	0	1	0
Personality	19	4	15	0	1	3	11	0	0	0	0
Physiological/Psychobiology	93	11	82	0	3	3	71	0	3	2	0
Psychometrics	5	2	3	0	0	0	3	0	0	0	0
Quantitative	17	3	14	0	1	1	11	0	1	0	0
School	84	2	80	0	1	3	74	0	0	2	0
Social	153	8	145	0	5	10	123	5	1	1	0
Psychology, General	284	25	232	1	13	9	190	7	1	1	10
Psychology, Other	156	8	141	0	6	3	118	3	1	1	9
HUMANITIES	4,743	632	4,026	23	184	114	3,491	40	45	91	38
History, American	310	11	298	5	10	9	261	2	6	2	3
History, European	180	14	166	1	3	1	157	0	0	3	1
History/Philosophy of Sci. & Tech.	26	1	25	0	2	1	22	0	0	0	0
History, General	140	25	108	0	5	6	93	1	0	2	1
History, Other	144	22	122	0	8	3	99	3	0	5	4
Classics	84	15	68	0	1	1	63	0	1	1	1
Comparative Literature	163	42	118	1	12	2	98	2	0	2	1
Linguistics	221	87	131	0	27	0	96	2	3	3	0
Speech and Rhetorical Studies	142	8	134	0	2	3	126	0	1	1	1
Letters, General	22	2	19	0	0	0	18	0	1	0	0
Letters, Other	25	3	22	0	0	0	21	0	0	0	1
American Studies	88	9	79	3	5	7	63	0	0	1	0
Archeology	34	4	30	0	1	0	29	0	0	0	0
Art History/Criticism/Conservation	182	15	162	1	7	4	144	0	2	2	2
Music	685	91	567	2	31	14	497	3	5	10	5
Philosophy	302	42	247	1	12	6	215	1	1	6	5
Religion	252	24	228	1	8	13	204	1	0	0	1
Drama/Theater Arts	102	5	97	0	4	3	89	0	0	1	0
LANGUAGE AND LITERATURE	1,538	203	1,317	7	41	36	1,126	24	23	50	10
American	296	14	282	2	5	14	250	2	5	3	1
English	647	57	582	5	18	12	530	0	6	6	5
French	129	25	102	0	3	5	86	2	1	3	2
German	67	12	53	0	0	0	53	0	0	0	0
Italian	32	6	24	0	0	0	24	0	0	0	0
Spanish	212	56	156	0	1	2	88	19	9	36	1
Russian	38	3	35	0	0	0	34	0	0	0	1
Slavic	10	0	9	0	0	0	9	0	0	0	0
Chinese	25	8	17	0	9	1	7	0	0	0	0
Japanese	12	3	9	0	1	0	8	0	0	0	0
Hebrew	11	1	8	0	0	0	8	0	0	0	0
Arabic	4	0	4	0	2	0	2	0	0	0	0
Other Language and Literature	55	18	36	0	2	2	27	1	2	2	0
Humanities, General	31	1	30	1	1	1	25	1	0	1	0
Humanities, Other	72	8	58	0	4	4	45	0	2	1	2

NOTE: Field groupings may differ from those in reports published by federal sponsors of the Survey of Earned Doctorates. See inside the back cover for a description of fields as reported in this table. Refer also to the explanatory note about this table in front of Appendix A.

*Includes individuals who did not report their citizenship at time of doctorate.

APPENDIX TABLE A-2 (Continued)

Subfield of Doctorate	Total Doctorates*	Non-U.S. Citizens Temp. Visas	U.S. Citizens and Non-U.S. with Permanent Visas								
			Total	Native Amer.	Asian	Black	White	Puerto Rican	Mex-ican Amer.	Other His-panic	Unkn. Race
EDUCATION	6,683	537	6,040	36	172	517	5,028	67	100	72	48
Curriculum and Instruction	816	77	732	8	19	40	619	15	17	12	2
Educational Admin. and Supervision	1,205	43	1,146	6	22	123	937	13	27	11	7
Educational Leadership	780	25	745	5	9	96	606	4	15	7	3
Educ./Instruct. Media Design	111	27	84	0	5	11	68	0	0	0	0
Educ. Stat./Research Methods	68	8	58	0	6	2	49	0	0	1	0
Educ. Assess., Test., & Meas.	28	6	22	0	1	3	18	0	0	0	0
Educational Psychology	311	31	277	4	9	14	241	2	4	2	1
School Psychology	97	3	94	0	2	6	81	2	1	2	0
Social/Phil. Found. of Educ.	140	24	115	0	10	6	93	1	3	1	1
Special Education	241	14	225	0	4	11	196	1	5	7	1
Counseling Educ./Couns. & Guidance	282	7	268	1	4	19	234	6	1	3	0
Higher Educ./Evaluation & Research	428	14	409	1	10	42	341	1	6	6	2
Pre-elementary/Early Childhood	90	10	76	0	1	16	55	0	2	2	0
Elementary Education	71	4	67	1	1	6	57	2	0	0	0
Secondary Education	24	1	23	0	0	1	22	0	0	0	0
Adult and Continuing Education	215	13	201	1	4	21	170	1	2	2	0
TEACHING FIELDS	960	140	812	4	36	43	706	10	7	4	2
Agricultural Education	52	20	32	0	0	4	27	0	0	1	0
Art Education	33	2	31	0	4	1	25	0	0	0	1
Business Education	25	4	21	0	3	2	15	0	1	0	0
English Education	56	5	51	0	1	1	45	4	0	0	0
Foreign Languages Education	54	27	27	0	2	0	22	0	2	0	1
Health Education	97	7	89	1	2	5	78	3	0	0	0
Home Economics Education	11	2	9	0	1	0	8	0	0	0	0
Technical/Industrial Arts Education	20	5	15	0	0	2	12	0	0	1	0
Mathematics Education	74	8	66	0	2	3	60	0	0	1	0
Music Education	89	5	83	0	3	10	69	0	1	0	0
Nursing Education	24	0	24	1	0	1	21	1	0	0	0
Physical Education and Coaching	139	23	114	0	8	4	101	1	0	0	0
Reading Education	97	5	90	1	1	1	86	1	0	0	0
Science Education	85	14	70	0	3	2	65	0	0	0	0
Social Science Education	10	0	10	1	1	2	6	0	0	0	0
Technical Education	30	4	25	0	1	3	20	0	1	0	0
Trade and Industrial Education	24	7	17	0	1	1	13	0	2	0	0
Teacher Ed./Spec. Acad. & Voc., Other	40	2	38	0	3	1	33	0	0	1	0
Education, General	484	61	400	3	17	39	294	7	7	7	26
Education, Other	332	29	286	2	12	18	241	2	3	5	3
PROFESSIONAL/OTHER FIELDS	2,580	609	1,932	16	143	114	1,595	14	14	23	13
BUSINESS AND MANAGEMENT	1,285	360	905	7	85	37	754	2	7	9	4
Accounting	178	44	134	0	7	4	121	0	0	2	0
Banking/Financial Support Services	134	45	88	0	14	3	69	0	1	1	0
Business Admin. and Management	322	81	232	3	15	10	195	0	3	3	3
Business/Managerial Economics	40	10	30	0	5	2	23	0	0	0	0
International Business	22	11	11	0	2	1	7	0	1	0	0
Mgmt. Info. Sys./Bus. Data Proc.	117	48	69	1	11	3	52	1	0	1	0
Marketing Management and Research	167	40	127	2	9	4	110	0	0	1	1
Operations Research	54	23	31	1	6	2	22	0	0	0	0
Organizational Behavior	102	17	85	0	5	4	74	0	1	1	0
Bus. Mgmt./Admin. Serv., General	87	27	51	0	7	1	43	0	0	0	0
Bus. Mgmt./Admin. Serv., Other	62	14	47	0	4	3	38	1	1	0	0
COMMUNICATIONS	371	73	291	3	12	28	238	3	2	4	1
Communications Research	40	8	32	0	3	1	28	0	0	0	0
Mass Communications	156	39	115	3	4	11	93	3	0	1	0
Communication Theory	45	2	43	0	2	2	37	0	1	1	0
Communications, General	68	16	47	0	1	3	40	0	1	1	1
Communications, Other	62	8	54	0	2	11	40	0	0	1	0
OTHER PROFESSIONAL FIELDS	885	165	709	5	44	49	579	9	5	10	8
Architectural Environmental Design	67	34	33	1	12	0	20	0	0	0	0
Home Economics	31	8	23	0	2	1	20	0	0	0	0
Law	33	17	14	0	4	0	7	2	0	1	0
Library Science	41	8	33	0	0	4	28	0	0	1	0
Parks/Recreation/Leisure/Fitness	37	9	28	0	0	0	26	1	0	0	1
Public Administration	134	23	108	0	5	9	85	0	0	3	6
Social Work	272	17	252	4	10	26	200	6	4	2	0
Theology/Religious Education	258	44	211	0	10	8	188	0	1	3	1
Professional Fields, General	1	1	0	0	0	0	0	0	0	0	0
Professional Fields, Other	11	4	7	0	1	1	5	0	0	0	0
OTHER FIELDS	39	11	27	1	2	0	24	0	0	0	0

SOURCE: National Research Council, Survey of Earned Doctorates.

APPENDIX TABLE A-3 Statistical Profile of Doctorate Recipients, by Major Field, 1994

Total All Doctorates

		1994 Total	Physics and Astronomy	Chemistry	Earth, Atmos. and Marine Sci.	Mathematics	Computer Sciences	PHYSICAL SCIENCES	ENGINEERING	Biochemistry	Other Biosciences	Biosciences Subtotal	Health Sciences	Agricultural Sciences	LIFE SCIENCES
Number in Field		**41,011**	**1,692**	**2,254**	**853**	**1,118**	**904**	**6,821**	**5,826**	**805**	**4,392**	**5,197**	**1,297**	**1,240**	**7,734**
Men	%	61.5	88.2	72.3	78.2	78.9	84.8	79.7	89.1	60.1	59.4	59.5	34.9	78.3	58.4
Women		38.5	11.8	27.7	21.8	21.1	15.2	20.3	10.9	39.9	40.6	40.5	65.1	21.7	41.6
U.S. Citizenship	%	66.1	52.7	57.2	61.1	44.4	47.1	53.1	38.0	60.4	66.7	65.7	74.1	46.0	64.0
Non-U.S., Permanent Visa		9.1	15.6	14.4	12.7	13.5	12.9	14.1	14.4	16.0	12.3	12.9	6.9	9.4	11.3
Non-U.S., Temporary Visa		22.9	29.8	26.5	23.8	39.1	38.1	30.6	45.6	22.5	19.9	20.3	17.7	43.9	23.6
Unknown		1.9	2.0	2.0	2.5	3.0	1.9	2.2	2.1	1.1	1.1	1.1	1.4	0.7	1.1
Married	%	56.8	50.1	53.5	58.4	52.4	59.0	53.8	59.8	55.4	55.6	55.6	56.0	67.1	57.5
Not Married		34.7	43.9	39.0	34.8	40.3	33.3	39.1	32.5	38.9	37.8	38.0	33.0	24.7	35.0
Unknown		8.6	6.0	7.5	6.8	7.3	7.7	7.1	7.6	5.7	6.6	6.4	11.0	8.2	7.5
Median Age at Doct.*	Yrs	34.1	30.5	30.0	33.7	31.2	32.1	31.0	31.7	30.5	31.7	31.5	37.7	34.5	32.7
Percent with Bacc. in Same Field as Doctorate	%	55.6	74.4	78.5	55.7	74.3	36.8	68.4	80.4	26.1	54.2	49.8	47.2	59.8	51.0
Percent with Masters	%	78.9	67.7	43.1	82.2	77.7	87.1	65.6	87.3	37.9	48.4	46.8	84.9	92.1	60.4
Median Time Lapse from Bacc. to Doct.*															
Total Time	Yrs	10.8	8.0	7.3	10.6	8.9	9.7	8.5	9.0	8.0	8.9	8.7	14.0	11.0	9.5
Registered Time		7.2	6.9	6.0	7.7	6.8	7.2	6.7	6.4	6.5	7.0	6.9	7.5	6.7	7.0
Postdoctoral Study Plans	%	27.0	63.7	55.7	45.0	26.7	14.9	46.2	24.5	84.2	71.3	73.3	18.9	32.4	57.6
Fellowship		13.7	22.8	26.1	21.7	14.1	6.7	20.2	8.4	51.2	42.8	44.1	12.7	10.9	33.5
Research Assoc.		10.5	38.7	28.2	22.2	10.7	7.1	24.4	14.4	24.3	20.6	21.2	4.1	19.4	18.0
Traineeship		0.9	0.5	0.4	0.2	0.4	0.2	0.4	0.8	2.4	2.1	2.1	0.8	0.9	1.7
Other Study		1.8	1.7	1.0	0.9	1.3	0.9	1.2	0.7	6.3	5.8	5.9	1.3	1.3	4.4
Planned Employment After Doctorate	%	65.3	29.7	37.7	48.5	65.3	79.0	47.1	67.6	11.1	23.5	21.6	70.9	60.1	36.0
Educ. Institution†		38.8	8.0	8.7	19.1	46.2	36.1	19.6	19.6	2.9	11.7	10.4	41.6	25.1	18.0
Industry/Business		13.5	13.9	25.2	14.3	11.4	33.6	19.9	35.9	6.6	5.3	5.5	10.5	14.8	7.8
Government		5.0	3.5	1.2	10.2	2.3	4.8	3.6	6.0	0.6	3.2	2.8	7.5	11.9	5.1
Nonprofit		3.5	0.7	0.4	1.2	0.5	1.0	0.6	1.2	0.4	1.3	1.2	6.7	2.6	2.3
Other & Unknown		4.5	3.6	2.2	3.8	4.8	3.5	3.3	5.0	0.6	1.9	1.7	4.6	5.7	2.9
Postdoc. Plans Unknown	%	7.7	6.6	6.6	6.4	8.1	6.1	6.8	7.9	4.7	5.1	5.1	10.2	7.5	6.3
Definite Postdoc. Study	%	17.7	40.4	40.8	28.5	14.7	8.8	30.6	12.2	64.1	53.6	55.3	12.1	18.5	42.1
Seeking Postdoc. Study		9.3	23.3	14.9	16.5	12.0	6.1	15.5	12.2	20.1	17.7	18.0	6.8	13.9	15.5
Definite Employment		42.6	15.0	23.9	31.5	38.9	52.2	28.9	38.3	7.1	15.2	13.9	49.2	38.1	23.7
Seeking Employment		22.7	14.7	13.8	17.0	26.4	26.8	18.2	29.4	4.0	8.4	7.7	21.7	21.9	12.3
Employment Commitments After Doctorate		**17,469**	**254**	**538**	**269**	**435**	**472**	**1,968**	**2,230**	**57**	**666**	**723**	**638**	**473**	**1,834**
Primary Activity‡															
R & D	%	27.3	56.3	66.6	51.5	33.9	57.7	53.9	63.7	56.1	44.4	45.3	30.2	49.9	41.2
Teaching		35.1	20.3	18.1	17.1	49.0	23.6	26.4	14.9	16.7	25.4	24.7	33.7	20.7	26.8
Administration		11.5	2.2	1.3	3.9	1.3	3.2	2.2	2.1	2.6	3.1	3.0	10.9	3.6	5.9
Prof. Services		11.2	7.1	5.2	10.0	3.7	3.2	5.3	7.1	12.3	12.3	12.3	12.2	8.2	11.2
Other		3.0	4.7	1.3	4.5	0.7	1.9	2.2	3.2	5.3	4.8	4.8	1.4	4.9	3.7
Secondary Activity															
R & D	%	26.6	18.9	15.3	21.9	40.5	22.0	23.9	16.6	14.0	23.9	23.1	30.0	20.6	24.9
Teaching		13.2	5.1	4.5	14.9	18.2	15.5	11.6	12.1	12.3	15.9	15.6	15.4	14.6	15.3
Administration		8.5	9.8	19.4	6.7	4.4	6.4	10.0	11.0	15.8	10.1	10.5	10.3	9.4	10.1
Prof. Services		7.6	8.7	7.8	11.9	4.1	7.6	7.6	7.7	5.3	6.0	5.9	9.4	9.1	8.0
Other		2.5	2.0	1.7	2.2	1.1	1.5	1.6	2.5	3.5	2.3	2.4	2.7	2.1	2.4
No Secondary Activity		29.7	46.1	43.9	29.4	20.2	36.7	35.2	41.2	42.1	31.8	32.6	20.7	31.5	28.2
Activity(ies) Unknown	%	11.9	9.4	7.4	13.0	11.5	10.4	10.1	8.9	7.0	10.1	9.8	11.6	12.7	11.2
Region of Employment After Doctorate§															
New England	%	5.8	9.8	8.0	4.1	6.7	6.4	7.0	6.5	12.3	7.1	7.5	3.8	2.1	4.8
Middle Atlantic		12.5	13.0	21.6	6.3	11.3	16.3	14.8	10.8	10.5	12.2	12.0	12.2	3.4	9.9
East No. Central		13.3	11.0	19.5	8.6	15.4	11.4	14.1	11.6	8.8	8.9	8.9	13.5	9.1	10.5
West No. Central		6.5	3.9	5.9	1.1	7.6	4.4	5.0	3.3	3.5	7.2	6.9	7.4	9.1	7.6
South Atlantic		15.7	11.0	14.1	14.5	13.1	13.8	13.5	10.8	12.3	16.5	16.2	16.1	9.1	14.3
East So. Central		4.8	5.9	2.6	2.2	4.1	1.7	3.1	2.3	5.3	5.3	5.3	6.1	5.5	5.6
West So. Central		7.7	6.7	3.5	8.9	6.7	6.4	6.0	6.4	10.5	5.9	6.2	10.2	5.5	7.4
Mountain		5.1	7.5	4.1	11.2	4.4	4.9	5.7	5.5	5.3	3.8	3.9	4.9	3.8	4.2
Pacific & Insular		10.9	14.6	9.5	17.1	9.9	15.5	12.7	15.7	17.5	11.6	12.0	8.6	8.0	9.8
U.S., Region Unknown		4.1	3.9	2.4	5.9	1.6	3.4	3.2	3.5	3.5	3.8	3.7	4.2	1.7	3.4
Foreign		13.5	12.6	8.6	19.7	19.1	15.7	14.6	23.3	10.5	17.7	17.2	13.0	42.3	22.2
Region Unknown		0.1	0.0	0.2	0.4	0.2	0.2	0.2	0.3	0.0	0.3	0.3	0.0	0.4	0.2

NOTE: Field groupings may differ from those in reports published by federal sponsors of the Survey of Earned Doctorates. See inside the back cover for a description of fields as reported in this table. Physical Sciences includes Mathematics and Computer Sciences, as well as Physics/Astronomy, Chemistry, and Earth/Atmospheric/Marine Sciences. Refer also to the explanatory note for this table.

*The method of median computation has been revised. See page 42 for more information.

†Includes 2-year, 4-year, and foreign colleges and universities, medical schools, and elementary/secondary schools.

‡Includes only recipients with definite employment plans. Survey revisions in the 1990s appear to have resulted in greater nonresponse to the item on work activity than in earlier years (11.9% in 1994 versus 6.2% in 1989). However, nonresponse has decreased since 1993 (15.1%).

§Includes only recipients with definite employment plans. See Table A-3 explanatory note for regional definitions.

APPENDIX TABLE A-3 (Continued)

Psychology	Economics	Anthropology and Sociology	Political Sci./ Internat'l Rel.	Other Social Sciences	SOCIAL SCI. INCL. PSYCH.	TOTAL SCIENCES & ENGINEERING	History	Eng. and Amer. Lang. and Lit.	Foreign Lang. and Lit.	Other Humanities	HUMANITIES	EDUCATION	Business and Management	Other Professional Fields	Other Fields ‖	PROFESSIONAL/ OTHER FIELDS	TOTAL NONSCIENCES
3,260	**940**	**908**	**703**	**813**	**6,624**	**27,005**	**800**	**943**	**595**	**2,405**	**4,743**	**6,683**	**1,285**	**1,256**	**39**	**2,580**	**14,006**
38.5	75.5	47.4	72.0	55.1	50.6	68.5	63.1	43.3	36.5	56.1	52.3	39.1	71.6	54.0	61.5	62.9	47.9
61.5	24.5	52.6	28.0	44.9	49.4	31.5	36.9	56.7	63.5	43.9	47.7	60.9	28.4	46.0	38.5	37.1	52.1
90.6	41.7	73.5	65.9	64.2	75.5	58.4	84.4	88.4	61.8	76.3	78.3	87.4	63.1	74.5		68.6	80.9
2.4	11.1	7.5	9.5	9.2	5.9	11.4	5.5	3.2	14.3	6.4	6.6	3.0	7.3	5.1		6.2	4.8
4.2	43.7	17.3	20.2	24.5	15.8	28.2	9.1	7.5	22.2	14.8	13.3	8.0	28.0	18.9		23.6	12.7
2.8	3.5	1.8	4.4	2.1	2.8	2.0	1.0	0.8	1.7	2.5	1.8	1.6	1.6	1.4		1.5	1.6
48.8	53.9	55.0	55.2	60.8	52.5	55.9	54.4	48.3	52.8	50.6	51.0	62.7	63.2	59.9		61.5	58.5
39.9	38.2	38.5	32.0	29.5	37.4	36.1	40.0	42.0	39.8	40.0	40.4	26.7	27.8	31.6		29.7	31.9
11.2	7.9	6.5	12.8	9.7	10.1	8.1	5.6	9.8	7.4	9.4	8.6	10.6	9.0	8.5		8.8	9.6
33.1	32.7	36.8	33.9	37.4	34.1	32.2	35.3	35.2	35.5	36.2	35.7	43.6	35.5	39.6		37.2	39.9
62.1	58.7	48.5	50.6	18.6	53.2	62.3	59.9	65.6	49.7	55.2	57.4	36.9	36.0	26.0		30.6	42.7
77.6	76.6	90.7	84.2	90.2	81.5	72.7	88.5	88.2	87.7	88.7	88.4	93.0	86.2	94.4		90.1	90.9
9.4	9.7	12.4	11.0	13.0	10.5	9.3	11.6	11.3	11.2	12.5	12.0	19.7	12.2	15.8		13.5	15.9
7.2	7.2	8.7	7.9	7.6	7.5	6.9	8.6	8.3	8.3	8.6	8.5	8.1	7.2	8.0		7.5	8.0
26.2	6.0	16.2	10.1	11.2	18.4	38.0	10.9	5.5	8.2	8.1	8.1	4.6	3.7	5.3		4.5	5.8
17.8	3.5	10.5	7.1	5.2	12.1	19.5	6.9	3.3	3.9	4.2	4.4	1.7	1.2	2.1		1.7	2.6
4.5	1.9	3.6	1.4	3.7	3.6	15.3	2.0	0.3	1.0	1.3	1.2	1.2	1.6	1.6		1.7	1.3
2.6	0.2	0.3	0.4	0.6	1.5	1.1	0.1	0.0	0.3	0.7	0.4	0.5	0.3	0.3		0.3	0.4
1.2	0.3	1.8	1.1	1.7	1.2	2.0	1.9	1.9	3.0	1.9	2.0	1.2	0.5	1.2		0.8	1.4
64.9	85.7	77.4	78.9	79.7	72.9	54.7	82.8	87.0	83.9	83.2	84.0	86.5	89.6	86.6		87.9	85.9
24.7	52.8	56.7	60.0	49.0	39.8	24.1	68.1	77.9	75.0	65.8	69.8	66.9	71.4	55.8		63.4	67.2
13.2	11.1	5.5	4.7	8.4	10.4	17.5	3.9	2.5	2.7	5.0	4.0	5.5	11.4	7.7		9.7	5.8
7.8	9.9	5.1	6.3	9.1	7.7	5.6	3.4	0.4	0.5	1.6	1.5	5.3	2.9	6.4		4.7	3.9
12.1	2.7	3.4	3.1	6.4	7.9	3.0	1.9	1.1	1.3	5.9	3.7	4.1	0.8	12.7		6.7	4.4
7.1	9.4	6.7	4.8	6.9	7.1	4.5	5.5	5.0	4.4	4.9	4.9	4.6	3.1	4.1		3.5	4.5
8.9	8.3	6.4	11.0	9.1	8.7	7.4	6.4	7.5	7.9	8.7	8.0	8.9	6.8	8.1		7.5	8.3
19.0	3.0	8.3	4.1	5.3	12.0	25.4	5.6	3.0	3.2	3.7	3.8	2.4	1.7	3.1		2.5	2.9
7.1	3.0	7.9	6.0	5.9	6.4	12.6	5.2	2.5	5.0	4.4	4.3	2.2	1.9	2.1		2.1	2.9
43.8	59.1	45.7	51.8	50.7	47.9	34.1	47.4	50.4	51.9	50.0	49.9	63.3	67.3	62.3		64.6	59.0
21.1	26.6	31.7	27.2	29.0	25.0	20.6	35.4	36.6	31.9	33.2	34.1	23.2	22.3	24.3		23.3	26.9
1,428	**556**	**415**	**364**	**412**	**3,175**	**9,207**	**379**	**475**	**309**	**1,203**	**2,366**	**4,229**	**865**	**783**		**1,667**	**8,262**
17.1	45.7	23.1	20.3	26.9	24.5	43.6	11.3	5.4	8.1	7.5	7.8	5.7	27.4	11.2		19.9	9.2
15.4	31.4	48.9	49.7	38.1	29.5	24.8	61.2	74.0	72.2	64.6	66.9	34.3	50.2	48.0		48.8	46.6
4.3	3.3	7.0	4.9	10.4	5.4	4.0	3.7	3.6	2.3	3.7	3.5	33.5	4.4	12.0		8.0	19.8
52.5	4.7	5.1	3.3	10.0	26.8	14.3	3.4	1.3	1.3	5.3	3.7	10.0	2.8	13.2		7.7	7.7
2.7	3.8	1.9	4.1	2.2	2.9	3.0	3.7	1.7	1.0	6.0	4.1	2.3	2.9	4.7		3.8	3.1
22.4	29.7	41.2	40.2	32.3	29.5	24.2	45.3	45.9	51.5	35.7	41.3	18.5	44.2	34.0		39.2	29.2
16.9	24.1	12.3	15.9	14.3	17.1	14.4	10.9	6.1	5.8	8.7	8.2	11.2	24.5	13.7		19.2	11.9
9.0	7.0	6.3	4.3	5.6	7.3	9.3	5.5	7.4	4.9	8.0	7.1	8.3	3.5	8.4		5.9	7.5
8.2	4.5	3.9	1.6	6.8	6.0	7.2	2.9	3.2	2.3	5.6	4.2	10.9	3.1	9.2		6.1	8.0
3.2	2.0	2.4	1.1	1.9	2.5	2.3	1.8	2.3	2.3	7.3	4.8	2.0	0.9	2.9		1.9	2.8
32.3	21.6	20.0	19.2	26.7	26.6	32.3	16.9	21.1	18.1	21.9	20.4	34.8	11.3	20.9		16.1	26.9
8.0	11.2	14.0	17.6	12.4	11.0	10.3	16.6	14.1	15.2	12.9	14.0	14.3	12.4	10.9		11.7	13.7
5.7	7.4	5.5	7.4	6.1	6.2	6.2	7.4	8.4	9.1	6.6	7.4	4.7	5.1	2.6		4.0	5.3
17.8	10.4	15.4	11.0	11.7	14.6	12.8	14.2	15.2	14.2	11.4	13.0	11.8	12.4	12.0		12.2	12.2
13.9	10.6	11.8	11.0	12.1	12.5	12.2	16.6	15.2	18.8	14.0	15.3	14.8	12.5	11.7		12.2	14.4
6.4	3.1	7.2	4.9	6.6	5.8	5.4	5.5	6.3	6.5	8.2	7.2	8.7	6.2	5.7		5.9	7.7
14.2	23.2	16.4	18.1	14.6	16.6	14.1	15.8	15.4	16.2	15.0	15.3	19.0	16.2	17.8		16.7	17.5
5.2	0.5	3.9	3.6	1.9	3.6	3.6	3.7	7.2	3.2	5.6	5.3	6.3	7.4	7.8		7.5	6.3
8.6	3.6	6.5	6.3	8.3	7.1	6.8	6.6	6.9	7.4	8.5	7.7	8.9	10.4	9.7		10.0	8.8
5.8	2.7	6.5	4.9	4.1	5.0	5.1	5.8	4.2	2.6	4.7	4.5	5.3	4.7	5.4		5.0	5.0
14.0	9.7	10.6	10.4	8.3	11.7	12.5	10.3	9.7	11.7	10.0	10.2	9.2	6.4	8.9		7.8	9.2
5.0	1.6	2.7	4.4	5.1	4.1	3.6	4.5	4.4	3.9	4.5	4.4	5.3	2.2	4.2		3.2	4.6
3.4	26.8	13.5	17.9	21.4	12.8	17.6	9.2	7.2	6.5	11.6	9.6	6.0	16.5	14.0		15.4	8.9
0.0	0.4	0.0	0.0	0.0	0.1	0.2	0.3	0.0	0.0	0.0	0.0	0.1	0.0	0.1		0.1	0.1

‖ Statistics are not presented for this group because too few records contained the specific data.

APPENDIX TABLE A-3 (Continued)

Doctorates: Men

		1994 Total	Physics and Astronomy	Chemistry	Earth, Atmos. and Marine Sci.	Mathematics	Computer Sciences	PHYSICAL SCIENCES	ENGINEERING	Biochemistry	Other Biosciences	Biosciences Subtotal	Health Sciences	Agricultural Sciences	LIFE SCIENCES
Total Men		**25,205**	**1,492**	**1,630**	**667**	**882**	**767**	**5,438**	**5,191**	**484**	**2,608**	**3,092**	**453**	**971**	**4,516**
Men as a Percent of Total Doctorates	%	61.5	88.2	72.3	78.2	78.9	84.8	79.7	89.1	60.1	59.4	59.5	34.9	78.3	58.4
U.S. Citizenship	%	58.4	52.6	58.0	59.1	42.5	45.5	52.4	36.0	57.6	63.2	62.3	62.5	44.0	58.4
Non-U.S., Permanent Visa		10.5	14.2	12.6	13.2	13.9	13.0	13.4	14.1	17.4	12.8	13.5	9.9	9.0	12.2
Non-U.S., Temporary Visa		29.0	31.0	27.0	24.6	40.0	39.5	31.7	47.7	23.8	22.5	22.7	25.2	46.3	28.1
Unknown		2.2	2.2	2.5	3.1	3.5	2.0	2.6	2.1	1.2	1.5	1.5	2.4	0.7	1.4
Married	%	60.2	49.5	53.7	61.2	51.8	60.8	54.1	60.5	58.5	58.9	58.8	62.7	71.8	62.0
Not Married		31.6	44.1	38.7	31.6	40.2	31.9	38.6	32.2	34.9	34.1	34.2	24.5	21.3	30.5
Unknown		8.1	6.4	7.6	7.2	7.9	7.3	7.2	7.3	6.6	7.1	7.0	12.8	6.9	7.6
Median Age at Doct.*	Yrs	33.2	30.5	30.2	33.7	31.2	31.8	31.1	31.8	30.7	31.9	31.7	35.7	34.9	32.7
Percent with Bacc. in Same Field as Doctorate	%	58.3	74.0	77.1	57.6	74.0	38.2	67.9	81.2	26.4	52.0	48.0	27.4	63.4	49.2
Percent with Masters	%	78.1	66.8	42.6	83.7	76.4	86.6	66.0	87.8	39.9	49.7	48.2	78.8	93.0	60.9
Median Time Lapse from Bacc. to Doct.*															
Total Time	Yrs	10.1	8.0	7.3	10.7	9.0	9.5	8.5	9.1	8.0	9.0	8.8	12.3	11.2	9.4
Registered Time		7.0	6.9	6.0	7.7	6.8	7.1	6.8	6.4	6.5	7.0	7.0	7.2	6.6	6.9
Postdoctoral Study Plans	%	29.2	63.3	56.1	43.0	28.7	15.3	46.3	24.3	82.6	70.2	72.2	23.8	31.9	58.7
Fellowship		14.0	23.0	26.7	21.1	14.7	7.0	20.3	8.4	49.8	40.8	42.2	15.7	10.2	32.7
Research Assoc.		12.5	38.2	28.2	20.5	12.0	7.3	24.4	14.3	23.3	20.4	20.9	5.7	19.6	19.1
Traineeship		0.9	0.5	0.4	0.1	0.5	0.3	0.4	0.9	2.7	2.5	2.6	1.3	0.8	2.1
Other Study		1.8	1.6	0.9	1.2	1.5	0.7	1.2	0.8	6.8	6.5	6.5	1.1	1.3	4.9
Planned Employment After Doctorate	%	63.0	30.0	36.9	49.5	62.6	78.9	46.6	67.8	12.0	23.9	22.0	63.6	61.5	34.7
Educ. Institution†		33.8	7.4	7.2	18.0	42.6	34.8	18.2	19.1	3.1	11.2	9.9	32.2	25.3	15.5
Industry/Business		16.7	14.7	26.3	16.2	12.5	35.6	21.0	36.6	7.2	6.0	6.2	13.5	15.4	8.9
Government		5.5	3.5	1.2	10.3	2.6	4.7	3.7	6.0	1.0	3.9	3.5	9.5	13.0	6.1
Nonprofit		3.0	0.7	0.3	1.2	0.6	0.9	0.7	1.2	0.2	1.2	1.0	4.9	2.5	1.7
Other & Unknown		4.0	3.6	2.0	3.7	4.3	2.9	3.1	4.9	0.4	1.6	1.4	3.5	5.3	2.5
Postdoc. Plans Unknown	%	7.8	6.7	7.0	7.5	8.7	5.9	7.1	7.9	5.4	5.9	5.8	12.6	6.6	6.6
Definite Postdoc. Study	%	18.8	40.5	41.3	25.3	15.5	8.5	30.3	11.7	64.0	52.6	54.4	15.5	18.4	42.8
Seeking Postdoc. Study		10.4	22.8	14.7	17.7	13.2	6.8	15.9	12.5	18.6	17.6	17.8	8.4	13.5	15.9
Definite Employment		40.3	15.1	24.4	32.1	35.8	52.9	28.7	38.3	8.1	16.1	14.8	43.9	39.9	23.1
Seeking Employment		22.8	14.8	12.6	17.4	26.8	25.9	18.0	29.5	3.9	7.8	7.2	19.6	21.6	11.6
Employment Commitments After Doctorate		**10,147**	**226**	**397**	**214**	**316**	**406**	**1,559**	**1,987**	**39**	**419**	**458**	**199**	**387**	**1,044**
Primary Activity‡															
R & D	%	34.4	57.1	69.3	51.4	33.9	59.1	55.2	64.2	59.0	46.7	47.7	40.7	51.7	47.8
Teaching		30.3	17.9	14.4	13.8	45.1	21.7	22.9	14.5	16.7	21.5	21.1	22.4	19.6	20.8
Administration		9.8	2.4	1.5	4.9	1.7	3.2	2.6	2.2	3.8	3.5	3.5	11.3	3.6	5.0
Prof. Services		9.5	8.0	4.5	10.7	4.4	3.4	5.6	7.1	7.7	13.6	13.1	12.6	8.8	11.4
Other		3.5	5.3	1.8	5.6	0.9	1.7	2.6	3.0	7.7	4.3	4.6	2.5	4.7	4.2
Secondary Activity															
R & D	%	24.2	17.3	11.7	19.2	36.1	19.7	20.6	16.1	12.8	21.7	21.0	27.1	20.5	22.0
Teaching		13.4	4.9	5.0	14.5	16.1	13.8	10.8	11.8	12.8	16.9	16.6	15.6	14.5	15.6
Administration		9.5	10.2	22.0	7.0	4.7	6.7	10.7	11.6	17.9	10.7	11.4	12.1	10.5	11.2
Prof. Services		7.3	9.7	8.1	12.6	4.7	8.4	8.3	8.0	5.1	6.2	6.1	10.1	9.3	8.0
Other		2.4	2.2	1.5	2.8	1.3	1.5	1.7	2.2	5.1	1.7	2.0	4.0	1.6	2.2
No Secondary Activity		30.8	46.5	43.1	30.4	23.1	39.2	36.8	41.5	41.0	32.2	33.0	20.6	32.0	30.3
Activity(ies) Unknown	%	12.5	9.3	8.6	13.6	13.9	10.8	11.0	9.0	5.1	10.5	10.0	10.6	11.6	10.7
Region of Employment After Doctorate§															
New England		5.6	11.1	8.1	3.7	6.6	6.2	7.1	6.4	7.7	6.7	6.8	3.5	2.1	4.4
Middle Atlantic		12.0	12.4	21.4	7.0	11.4	15.8	14.6	10.5	7.7	10.0	9.8	10.1	2.8	7.3
East No. Central		12.6	8.8	19.6	9.3	13.6	11.6	13.3	11.6	5.1	8.6	8.3	10.6	9.6	9.2
West No. Central		5.9	3.1	5.5	0.0	7.0	4.4	4.4	3.4	5.1	6.4	6.3	9.5	8.5	7.8
South Atlantic		14.2	11.1	12.8	12.6	13.6	13.1	12.8	10.5	10.3	15.8	15.3	15.6	9.3	13.1
East So. Central		4.5	5.8	2.3	2.3	4.1	1.2	2.9	2.0	7.7	6.0	6.1	4.5	5.9	5.7
West So. Central		7.2	7.1	3.8	9.3	6.0	6.4	6.2	6.1	12.8	6.0	6.6	11.1	5.7	7.1
Mountain		5.1	8.0	4.3	10.3	4.1	5.2	5.8	4.8	5.1	3.8	3.9	4.5	2.8	3.6
Pacific & Insular		11.5	15.0	10.1	17.3	11.4	16.3	13.7	15.8	23.1	11.5	12.4	7.5	7.0	9.5
U.S., Region Unknown		3.3	3.5	1.8	7.0	2.2	3.4	3.3	3.5	0.0	4.3	3.9	3.5	1.3	2.9
Foreign		17.9	14.2	10.1	21.0	19.9	16.3	15.8	25.1	15.4	20.8	20.3	19.6	44.4	29.1
Region Unknown		0.1	0.0	0.3	0.0	0.0	0.2	0.1	0.3	0.0	0.2	0.2	0.0	0.5	0.3

NOTE: Field groupings may differ from those in reports published by federal sponsors of the Survey of Earned Doctorates. See inside the back cover for a description of fields as reported in this table. Physical Sciences includes Mathematics and Computer Sciences, as well as Physics/Astronomy, Chemistry, and Earth/Atmospheric/Marine Sciences. Refer also to the explanatory note for this table.

*The method of median computation has been revised. See page 42 for more information.

†Includes 2-year, 4-year, and foreign colleges and universities, medical schools, and elementary/secondary schools.

‡Includes only recipients with definite employment plans. Survey revisions in the 1990s appear to have resulted in greater nonresponse to the item on work activity than in earlier years (12.5% in 1994 versus 6.8% in 1989). However, nonresponse has decreased since 1993 (15.5%).

§Includes only recipients with definite employment plans. See Table A-3 explanatory note for regional definitions.

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APPENDIX TABLE A-3 (Continued)

Psychology	Economics	Anthropology and Sociology	Political Sci./ Internat'l Rel.	Other Social Sciences	SOCIAL SCI. INCL. PSYCH	TOTAL SCIENCES & ENGINEERING	History	Eng. and Amer. Lang. and Lit.	Foreign Lang. and Lit.	Other Humanities	HUMANITIES	EDUCATION	Business and Management	Other Professional Fields	Other Fields ‖	PROFESSIONAL/ OTHER FIELDS	TOTAL NONSCIENCES
1,255	**710**	**430**	**506**	**448**	**3,349**	**18,494**	**505**	**408**	**217**	**1,349**	**2,479**	**2,610**	**920**	**678**	**24**	**1,622**	**6,711**
38.5	75.5	47.4	72.0	55.1	50.6	68.5	63.1	43.3	36.5	56.1	52.3	39.1	71.6	54.0	61.5	62.9	47.9
89.6	36.5	67.7	60.9	53.6	66.3	51.8	83.4	85.5	60.8	76.1	77.8	84.1	58.2	68.4		62.5	76.5
2.0	11.8	7.7	10.9	10.3	7.3	12.2	6.3	3.7	10.6	6.4	6.3	4.1	7.9	6.3		7.3	5.7
5.5	47.9	22.8	23.1	33.3	23.1	33.7	9.3	10.0	26.3	14.7	13.8	10.3	32.6	23.5		28.7	16.0
2.9	3.8	1.9	5.1	2.9	3.3	2.3	1.0	0.7	2.3	2.9	2.1	1.6	1.3	1.8		1.5	1.8
55.5	56.1	62.1	59.3	65.0	58.3	58.6	57.8	52.5	51.6	54.5	54.6	72.6	67.6	68.6		67.8	64.8
34.2	36.1	31.6	27.7	25.0	32.0	33.6	37.0	38.5	41.0	35.9	37.0	17.5	24.8	21.5		23.5	26.2
10.3	7.9	6.3	13.0	10.0	9.6	7.8	5.1	9.1	7.4	9.6	8.4	9.8	7.6	9.9		8.8	9.1
33.3	32.7	36.6	34.3	37.0	34.2	32.1	35.0	34.5	35.7	36.2	35.7	42.9	35.2	38.7		36.7	38.6
61.9	58.2	51.4	50.4	24.8	53.1	64.4	59.2	67.4	42.4	55.6	57.1	32.9	36.6	25.1		31.3	41.4
77.6	77.7	91.6	85.4	90.4	82.3	73.8	87.9	86.8	84.8	87.1	87.0	92.8	87.1	93.5		89.6	89.9
9.7	9.8	12.5	11.0	12.5	10.7	9.2	11.3	10.5	11.2	12.3	11.7	19.0	11.9	15.4		13.0	14.6
7.2	7.2	8.5	7.9	7.5	7.5	6.8	8.5	8.1	8.3	8.4	8.3	8.2	7.2	8.0		7.4	8.0
25.2	6.1	17.9	10.3	11.6	16.1	37.7	10.5	5.9	6.5	7.6	7.8	4.6	3.7	4.9		4.4	5.7
16.3	3.1	12.1	7.3	5.6	10.2	18.1	6.9	3.7	5.1	3.8	4.5	1.8	1.3	1.9		1.5	2.7
5.3	2.3	4.4	1.2	3.8	3.7	16.5	1.8	0.7	0.0	1.1	1.1	1.3	1.6	1.2		1.7	1.3
2.2	0.3	0.0	0.6	0.4	1.0	1.0	0.2	0.0	0.0	0.7	0.4	0.3	0.4	0.3		0.4	0.4
1.4	0.4	1.4	1.2	1.8	1.2	2.0	1.6	1.5	1.4	2.0	1.8	1.2	0.3	1.5		0.8	1.3
66.1	85.4	75.8	77.7	79.2	74.9	54.8	83.6	86.0	83.4	83.2	83.8	86.4	90.1	85.1		87.6	85.7
23.7	50.7	56.3	57.7	47.3	41.9	22.1	67.9	77.7	73.3	65.4	68.6	67.0	69.9	50.6		61.2	66.2
14.4	12.1	4.2	5.5	8.9	10.5	20.5	3.6	2.0	2.3	5.1	4.0	5.3	13.2	6.3		10.4	6.1
9.9	10.3	5.6	7.1	10.7	9.1	5.9	4.4	1.0	0.5	1.6	1.9	6.0	3.3	8.1		5.3	4.3
11.6	2.5	3.5	2.8	6.5	6.6	2.1	2.0	1.5	2.3	7.2	4.8	4.7	0.7	16.7		7.5	5.4
6.6	9.7	6.3	4.5	5.8	6.8	4.1	5.7	3.9	5.1	4.0	4.4	3.4	3.2	3.4		3.2	3.7
8.7	8.6	6.3	12.1	9.2	8.9	7.6	5.9	8.1	10.1	9.1	8.4	9.0	6.2	10.0		8.0	8.5
19.7	2.8	8.8	4.2	5.6	10.5	24.6	5.5	3.7	2.8	3.3	3.8	2.2	1.7	3.2		2.5	2.9
5.5	3.2	9.1	6.1	6.0	5.6	13.1	5.0	2.2	3.7	4.3	4.0	2.4	2.0	1.6		1.8	2.9
46.8	56.6	44.4	48.8	51.6	49.5	33.8	45.5	45.8	48.4	49.3	47.9	64.6	65.7	60.8		63.2	58.1
19.4	28.7	31.4	28.9	27.7	25.4	21.0	38.0	40.2	35.0	34.0	35.9	21.8	24.5	24.3		24.4	27.6
587	**402**	**191**	**247**	**231**	**1,658**	**6,248**	**230**	**187**	**105**	**665**	**1,187**	**1,687**	**604**	**412**		**1,025**	**3,899**
18.9	47.6	27.0	19.4	26.4	27.9	49.6	10.4	5.3	7.1	6.9	7.4	5.7	27.9	8.4		20.2	10.0
13.6	29.4	42.7	50.4	37.9	29.6	21.7	58.0	74.3	69.5	60.2	62.8	29.1	48.3	47.2		47.5	44.2
4.9	3.6	7.9	5.5	10.6	5.8	3.7	4.1	2.7	2.4	4.7	4.1	37.4	4.6	12.6		7.9	19.5
50.3	5.0	4.2	4.0	8.7	21.3	11.2	4.3	1.1	1.0	6.5	4.7	8.7	2.5	12.1		6.4	6.9
2.9	4.0	2.6	4.5	3.0	3.4	3.2	3.9	1.6	1.0	7.4	5.2	2.6	3.1	6.8		4.6	3.9
22.3	28.6	36.1	40.7	32.5	29.6	21.8	40.7	46.0	51.4	31.1	37.1	16.2	42.3	30.1		37.2	28.1
16.3	25.6	15.2	14.2	13.4	17.7	13.7	10.7	4.8	5.7	10.1	9.0	11.7	24.3	12.1		19.3	12.9
11.5	8.5	5.2	4.3	5.2	8.1	10.4	5.7	9.6	2.9	9.6	8.3	8.8	4.2	10.4		6.7	8.1
8.2	3.7	3.1	2.0	6.1	5.3	7.4	2.6	3.7	2.9	7.1	5.3	9.2	3.1	9.7		5.8	7.1
2.9	1.2	2.6	0.8	1.7	2.0	2.0	2.6	1.6	3.8	8.1	5.6	1.7	1.0	3.4		2.0	2.9
29.5	21.9	22.0	21.9	27.7	25.4	34.2	18.7	19.3	14.3	19.7	19.0	35.9	11.4	21.4		15.7	25.4
9.4	10.4	15.7	16.2	13.4	11.9	10.6	19.1	15.0	19.0	14.3	15.8	16.5	13.6	12.9		13.4	15.5
5.5	7.0	3.1	7.3	5.2	5.8	6.1	7.8	6.4	9.5	5.9	6.7	4.0	5.1	1.9		3.9	4.8
17.9	10.2	15.7	10.1	9.5	13.4	11.8	13.9	19.8	17.1	11.1	13.6	12.0	13.6	9.5		12.0	12.5
14.7	9.5	13.6	8.5	10.4	11.8	11.7	13.5	12.3	17.1	12.6	13.1	16.5	11.6	9.7		10.7	14.0
7.2	2.2	6.3	4.5	6.5	5.4	4.9	4.3	6.4	6.7	8.3	7.1	9.2	5.3	5.8		5.5	7.6
11.6	21.6	15.2	15.8	12.1	15.1	12.7	16.5	11.2	12.4	14.3	14.1	18.1	14.7	19.7		16.6	16.5
5.8	0.2	4.2	4.5	2.6	3.6	3.3	5.2	8.0	2.9	6.3	6.1	5.9	7.0	9.0		7.7	6.4
8.2	4.5	6.8	6.1	7.4	6.7	6.5	7.4	8.0	11.4	9.3	8.9	7.4	9.9	10.0		9.9	8.5
7.8	2.2	6.8	6.5	3.5	5.5	5.1	6.5	4.8	0.0	4.8	4.7	6.0	5.1	3.9		4.6	5.2
13.6	9.2	7.9	8.9	10.0	10.7	12.9	10.9	10.7	12.4	12.0	11.6	9.1	5.8	8.3		7.0	9.3
3.2	1.5	1.0	5.3	4.3	3.0	3.2	3.5	3.2	1.9	3.9	3.5	3.7	2.3	3.6		2.9	3.4
4.6	31.3	19.4	22.7	28.6	18.8	21.8	10.4	9.1	8.6	11.4	10.6	8.1	19.5	18.4		19.1	11.8
0.0	0.5	0.0	0.0	0.0	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.2		0.1	0.1

‖ Statistics are not presented for this group because too few records contained the specific data.

APPENDIX TABLE A-3 (Continued)

Doctorates: Women

		1994 Total	Physics and Astronomy	Chemistry	Earth, Atmos. and Marine Sci.	Mathematics	Computer Sciences	PHYSICAL SCIENCES	ENGINEERING	Biochemistry	Other Biosciences	Biosciences Subtotal	Health Sciences	Agricultural Sciences	LIFE SCIENCES
Total, Women		**15,806**	**200**	**624**	**186**	**236**	**137**	**1,383**	**635**	**321**	**1,784**	**2,105**	**844**	**269**	**3,218**
Women as a Percent of Total Doctorates	%	38.5	11.8	27.7	21.8	21.1	15.2	20.3	10.9	39.9	40.6	40.5	65.1	21.7	41.6
U.S. Citizenship	%	78.4	53.0	55.1	68.3	51.3	56.2	56.0	54.0	64.5	71.9	70.7	80.3	53.5	71.8
Non-U.S., Permanent Visa		7.0	26.0	19.1	10.8	11.9	12.4	17.1	16.5	14.0	11.5	11.9	5.2	10.8	10.1
Non-U.S., Temporary Visa		13.1	21.0	25.2	21.0	35.6	29.9	26.2	28.0	20.6	16.1	16.8	13.6	34.9	17.5
Unknown		1.4	0.0	0.6	0.0	1.3	1.5	0.7	1.4	0.9	0.5	0.6	0.8	0.7	0.7
Married	%	51.2	55.0	53.0	48.4	54.7	48.9	52.6	54.5	50.8	50.9	50.9	52.4	50.2	51.2
Not Married		39.4	42.0	39.6	46.2	40.3	40.9	41.1	35.3	44.9	43.2	43.5	37.6	36.8	41.4
Unknown		9.3	3.0	7.4	5.4	5.1	10.2	6.4	10.2	4.4	5.9	5.7	10.1	13.0	7.4
Median Age at Doct.*	Yrs	35.9	30.7	29.3	33.4	30.7	33.5	30.7	30.7	30.2	31.3	31.2	38.9	33.2	32.5
Percent with Bacc. in Same Field as Doctorate	%	51.3	77.5	82.1	48.9	75.4	29.2	70.6	74.3	25.5	57.3	52.5	57.8	46.8	53.4
Percent with Masters	%	80.2	74.5	44.4	76.9	82.6	89.8	64.1	83.3	34.9	46.5	44.7	88.2	88.8	59.8
Median Time Lapse from Bacc. to Doct.*															
Total Time	Yrs	12.0	8.7	7.0	10.3	8.4	10.9	8.1	8.6	7.9	8.8	8.6	15.1	10.0	9.8
Registered Time		7.5	7.1	5.9	7.6	6.8	7.7	6.6	6.3	6.6	6.9	6.8	7.6	6.9	7.0
Postdoctoral Study Plans	%	23.5	66.0	54.8	52.2	19.1	13.1	45.8	26.0	86.6	72.9	75.0	16.2	34.2	56.2
Fellowship		13.2	21.0	24.7	23.7	11.9	5.1	19.9	9.0	53.3	45.7	46.9	11.1	13.4	34.7
Research Assoc.		7.4	42.0	28.2	28.0	5.9	5.8	24.2	15.7	25.9	20.9	21.6	3.2	18.6	16.5
Traineeship		1.0	0.5	0.6	0.5	0.4	0.0	0.5	0.6	1.9	1.5	1.5	0.5	1.1	1.2
Other Study		1.8	2.5	1.3	0.0	0.8	2.2	1.3	0.6	5.6	4.8	4.9	1.4	1.1	3.7
Planned Employment After Doctorate	%	69.0	28.0	39.6	45.2	75.4	79.6	48.7	66.3	9.7	23.0	21.0	74.9	55.0	38.0
Educ. Institution†		46.8	12.5	12.7	23.1	59.3	43.1	25.0	23.1	2.5	12.6	11.1	46.7	24.2	21.5
Industry/Business		8.5	8.0	22.3	7.5	7.6	22.6	15.8	29.4	5.6	4.3	4.5	8.9	12.3	6.3
Government		4.2	4.0	1.4	9.7	1.3	5.1	3.3	6.6	0.0	2.2	1.9	6.4	8.2	3.6
Nonprofit		4.3	0.0	0.5	1.1	0.4	1.5	0.6	1.3	0.6	1.5	1.3	7.7	3.0	3.1
Other & Unknown		5.2	3.5	2.7	3.8	6.8	7.3	4.1	5.8	0.9	2.4	2.2	5.2	7.4	3.4
Postdoc. Plans Unknown	%	7.5	6.0	5.6	2.7	5.5	7.3	5.4	7.7	3.7	4.1	4.0	8.9	10.8	5.9
Definite Postdoc. Study	%	16.0	39.0	39.4	39.8	11.4	10.9	31.8	16.2	64.2	55.1	56.5	10.3	19.0	41.2
Seeking Postdoc. Study		7.5	27.0	15.4	12.4	7.6	2.2	14.0	9.8	22.4	17.8	18.5	5.9	15.2	14.9
Definite Employment		46.3	14.0	22.6	29.6	50.4	48.2	29.6	38.3	5.6	13.8	12.6	52.0	32.0	24.5
Seeking Employment		22.7	14.0	17.0	15.6	25.0	31.4	19.2	28.0	4.0	9.2	8.4	22.9	23.0	13.4
Employment Commitments After Doctorate		**7,322**	**28**	**141**	**55**	**119**	**66**	**409**	**243**	**18**	**247**	**265**	**439**	**86**	**790**
Primary Activity‡															
R & D	%	17.5	50.0	59.2	51.8	34.0	49.2	48.7	60.1	50.0	40.5	41.1	25.4	41.9	32.5
Teaching		41.6	39.3	28.7	30.0	59.2	35.6	39.6	18.3	16.7	32.0	30.9	38.8	25.6	34.7
Administration		13.8	0.0	0.7	0.0	0.0	3.0	0.7	1.4	0.0	2.4	2.3	10.7	3.5	7.1
Prof. Services		13.5	0.0	7.1	7.3	1.7	1.5	4.2	7.0	22.2	10.1	10.9	12.1	5.8	11.0
Other		2.4	0.0	0.0	0.0	0.0	3.0	0.5	4.9	0.0	5.7	5.3	0.9	5.8	2.9
Secondary Activity															
R & D	%	29.9	32.1	25.5	32.7	52.1	36.4	36.4	21.4	16.7	27.5	26.8	31.3	20.9	28.7
Teaching		12.9	7.1	2.8	16.4	23.5	25.8	14.7	14.8	11.1	14.2	14.0	15.3	15.1	14.8
Administration		7.0	7.1	12.1	5.5	3.4	4.5	7.1	6.2	11.1	8.9	9.1	9.5	4.7	8.8
Prof. Services		8.0	0.0	7.1	9.1	2.5	3.0	4.9	5.8	5.6	5.7	5.7	9.1	8.1	7.8
Other		2.7	0.0	2.1	0.0	0.8	1.5	1.2	4.5	0.0	3.2	3.0	2.1	4.7	2.7
No Secondary Activity		28.3	42.9	46.1	25.5	12.6	21.2	29.3	39.1	44.4	31.2	32.1	20.7	29.1	25.4
Activity(ies) Unknown	%	11.2	10.7	4.3	10.9	5.0	7.6	6.4	8.2	11.1	9.3	9.4	12.1	17.4	11.8
Region of Employment After Doctorate§															
New England	%	6.0	0.0	7.8	5.5	6.7	7.6	6.6	7.8	22.2	7.7	8.7	3.9	2.3	5.3
Middle Atlantic		13.2	17.9	22.0	3.6	10.9	19.7	15.6	13.6	16.7	15.8	15.8	13.2	5.8	13.3
East No. Central		14.2	28.6	19.1	5.5	20.2	10.6	16.9	11.5	16.7	9.3	9.8	14.8	7.0	12.3
West No. Central		7.3	10.7	7.1	5.5	9.2	4.5	7.3	2.9	0.0	8.5	7.9	6.4	11.6	7.5
South Atlantic		17.7	10.7	17.7	21.8	11.8	18.2	16.1	12.8	16.7	17.8	17.7	16.4	8.1	15.9
East So. Central		5.4	7.1	3.5	1.8	4.2	4.5	3.9	5.3	0.0	4.0	3.8	6.8	3.5	5.4
West So. Central		8.4	3.6	2.8	7.3	8.4	6.1	5.6	8.6	5.6	5.7	5.7	9.8	4.7	7.8
Mountain		5.0	3.6	3.5	14.5	5.0	3.0	5.4	10.7	5.6	3.6	3.8	5.0	8.1	4.9
Pacific & Insular		10.1	10.7	7.8	16.4	5.9	10.6	9.0	14.4	5.6	11.7	11.3	9.1	12.8	10.3
U.S., Region Unknown		5.2	7.1	4.3	1.8	0.0	3.0	2.7	3.3	11.1	2.8	3.4	4.6	3.5	4.1
Foreign		7.4	0.0	4.3	14.5	16.8	12.1	10.3	8.6	0.0	12.6	11.7	10.0	32.6	13.0
Region Unknown		0.1	0.0	0.0	1.8	0.8	0.0	0.5	0.4	0.0	0.4	0.4	0.0	0.0	0.1

NOTE: Field groupings may differ from those in reports published by federal sponsors of the Survey of Earned Doctorates. See inside the back cover for a description of fields as reported in this table. Physical Sciences includes Mathematics and Computer Sciences, as well as Physics/Astronomy, Chemistry, and Earth/Atmospheric/Marine Sciences. Refer also to the explanatory note for this table.

*The method of median computation has been revised. See page 42 for more information.

†Includes 2-year, 4-year, and foreign colleges and universities, medical schools, and elementary/secondary schools.

‡Includes only recipients with definite employment plans. Survey revisions in the 1990s appear to have resulted in greater nonresponse to the item on work activity than in earlier years (11.2% in 1994 versus 5.3% in 1989). However, nonresponse has decreased since 1993 (14.6%).

§Includes only recipients with definite employment plans. See Table A-3 explanatory note for regional definitions.

APPENDIX TABLE A-3 (Continued)

Psychology	Economics	Anthropology and Sociology	Political Sci./ Internat'l Rel.	Other Social Sciences	SOCIAL SCI. INCL. PSYCH.	TOTAL SCIENCES & ENGINEERING	History	Eng. and Amer. Lang. and Lit.	Foreign Lang. and Lit.	Other Humanities	HUMANITIES	EDUCATION	Business and Management	Other Professional Fields	Other Fields ‖	PROFESSIONAL/ OTHER FIELDS	TOTAL NONSCIENCES
2,005	**230**	**478**	**197**	**365**	**3,275**	**8,511**	**295**	**535**	**378**	**1,056**	**2,264**	**4,073**	**365**	**578**	**15**	**958**	**7,295**
61.5	24.5	52.6	28.0	44.9	49.4	31.5	36.9	56.7	63.5	43.9	47.7	60.9	28.4	46.0	38.5	37.1	52.1
91.3	57.8	78.7	78.7	77.3	84.8	72.9	86.1	90.7	62.4	76.7	78.8	89.5	75.6	81.7		79.1	84.9
2.7	8.7	7.3	6.1	7.9	4.6	9.6	4.1	2.8	16.4	6.4	6.9	2.3	5.8	3.6		4.5	4.0
3.3	30.9	12.3	12.7	13.7	8.3	16.2	8.8	5.6	19.8	15.0	12.8	6.6	16.4	13.7		14.9	9.6
2.7	2.6	1.7	2.5	1.1	2.4	1.4	1.0	0.9	1.3	1.9	1.5	1.6	2.2	1.0		1.5	1.5
44.6	47.4	48.5	44.7	55.6	46.6	49.9	48.5	45.0	53.4	45.5	47.1	56.3	52.1	49.7		50.9	52.7
43.5	44.8	44.8	43.1	35.1	42.8	41.4	45.1	44.7	39.2	45.3	44.1	32.6	35.3	43.4		40.1	37.1
11.8	7.8	6.7	12.2	9.3	10.5	8.7	6.4	10.3	7.4	9.2	8.8	11.1	12.6	6.9		9.0	10.1
32.9	31.8	37.2	32.8	38.0	34.0	32.3	35.5	35.8	35.4	36.2	35.8	44.0	36.7	40.5		38.9	41.2
62.1	60.4	45.8	51.3	11.0	53.3	57.7	61.0	64.3	54.0	54.7	57.7	39.5	34.2	27.0		29.4	43.8
77.7	73.0	90.0	81.2	89.9	80.7	70.3	89.5	89.3	89.4	90.7	90.0	93.1	84.1	95.5		91.0	91.9
9.3	9.0	12.3	10.5	13.6	10.2	9.5	12.3	11.9	11.2	12.9	12.3	20.0	13.0	16.5		14.6	17.1
7.2	7.2	8.9	8.0	7.7	7.5	7.0	8.8	8.4	8.3	8.9	8.6	8.1	7.2	7.8		7.5	8.2
26.8	5.7	14.6	9.6	10.7	20.7	38.6	11.5	5.2	9.3	8.7	8.3	4.6	3.6	5.7		4.8	5.8
18.8	4.8	9.0	6.6	4.7	14.0	22.4	6.8	3.0	3.2	4.6	4.3	1.6	1.1	2.4		1.9	2.5
3.9	0.9	2.9	2.0	3.6	3.4	12.7	2.4	0.0	1.6	1.5	1.3	1.2	1.6	2.1		1.9	1.3
2.9	0.0	0.6	0.0	0.8	2.0	1.4	0.0	0.0	0.5	0.8	0.4	0.6	0.0	0.3		0.2	0.5
1.1	0.0	2.1	1.0	1.6	1.3	2.1	2.4	2.2	4.0	1.8	2.3	1.2	0.8	0.9		0.8	1.5
64.1	87.0	78.9	82.2	80.3	70.8	54.5	81.4	87.7	84.1	83.1	84.1	86.5	88.2	88.4		88.5	86.0
25.3	59.1	57.1	66.0	51.0	37.6	28.4	68.5	78.1	75.9	66.4	71.0	66.9	75.3	61.9		67.0	68.2
12.5	7.8	6.7	2.5	7.7	10.2	11.1	4.4	3.0	2.9	4.8	4.0	5.6	6.8	9.3		8.7	5.5
6.5	8.7	4.6	4.1	7.1	6.3	4.8	1.7	0.0	0.5	1.7	1.1	4.9	1.9	4.3		3.5	3.5
12.5	3.0	3.3	4.1	6.3	9.3	5.0	1.7	0.7	0.8	4.3	2.5	3.8	1.1	8.0		5.2	3.6
7.3	8.3	7.1	5.6	8.2	7.4	5.2	5.1	5.8	4.0	6.0	5.5	5.4	3.0	4.8		4.1	5.2
9.1	7.4	6.5	8.1	9.0	8.5	7.0	7.1	7.1	6.6	8.1	7.5	8.9	8.2	5.9		6.7	8.2
18.6	3.5	7.7	4.1	4.9	13.6	27.2	5.8	2.4	3.4	4.1	3.8	2.6	1.6	2.9		2.4	2.9
8.2	2.2	6.9	5.6	5.8	7.1	11.4	5.8	2.8	5.8	4.6	4.5	2.0	1.9	2.8		2.4	2.9
41.9	67.0	46.9	59.4	49.6	46.3	34.8	50.5	53.8	54.0	50.9	52.1	62.4	71.5	64.2		67.0	59.8
22.2	20.0	32.0	22.8	30.7	24.5	19.7	30.8	33.8	30.2	32.2	32.1	24.1	16.7	24.2		21.5	26.2
841	**154**	**224**	**117**	**181**	**1,517**	**2,959**	**149**	**288**	**204**	**538**	**1,179**	**2,542**	**261**	**371**		**642**	**4,363**
15.8	40.6	19.9	22.2	27.6	20.8	31.0	12.8	5.4	8.6	8.2	8.1	5.7	26.2	14.4		19.5	8.4
16.6	36.7	54.2	48.3	38.4	29.3	31.3	66.1	73.8	73.5	70.0	71.0	37.7	54.6	48.9		50.9	48.7
3.9	2.6	6.2	3.8	10.2	4.8	4.6	3.0	4.2	2.2	2.5	2.9	30.8	3.8	11.3		8.3	20.0
54.1	3.9	5.8	1.7	11.6	32.8	20.9	2.0	1.4	1.5	3.9	2.6	10.9	3.4	14.3		9.8	8.5
2.6	3.2	1.3	3.4	1.1	2.4	2.5	3.4	1.7	1.0	4.3	3.0	2.0	2.3	2.4		2.5	2.4
22.5	32.5	45.5	39.3	32.0	29.3	29.5	52.3	45.8	51.5	41.3	45.5	20.0	48.7	38.4		42.3	30.2
17.4	20.1	9.8	19.7	15.5	16.5	15.6	11.4	6.9	5.9	7.0	7.3	10.9	24.9	15.4		19.0	11.1
7.3	3.2	7.1	4.3	6.1	6.5	7.1	5.4	5.9	5.9	6.0	5.9	8.0	1.9	6.1		4.8	6.9
8.2	6.5	4.5	0.9	7.7	6.9	6.8	3.4	2.8	2.0	3.7	3.1	12.0	3.1	8.6		6.5	8.8
3.4	3.9	2.2	1.7	2.2	3.0	2.8	0.7	2.8	1.5	6.3	3.9	2.3	0.8	2.4		1.7	2.6
34.2	20.8	18.3	13.7	25.4	27.9	28.4	14.1	22.2	20.1	24.5	21.9	34.1	11.1	20.5		16.7	28.2
7.0	13.0	12.5	20.5	11.0	10.0	9.8	12.8	13.5	13.2	11.2	12.3	12.9	9.6	8.6		9.0	12.1
5.8	8.4	7.6	7.7	7.2	6.7	6.4	6.7	9.7	8.8	7.4	8.1	5.1	5.0	3.2		4.0	5.8
17.7	11.0	15.2	12.8	14.4	15.9	15.0	14.8	12.2	12.7	11.7	12.4	11.8	9.6	14.8		12.6	12.1
13.4	13.6	10.3	16.2	14.4	13.3	13.4	21.5	17.0	19.6	15.8	17.5	13.6	14.6	14.0		14.6	14.8
5.8	5.2	8.0	6.0	6.6	6.2	6.4	7.4	6.2	6.4	8.2	7.3	8.3	8.4	5.7		6.7	7.8
16.1	27.3	17.4	23.1	17.7	18.1	16.8	14.8	18.1	18.1	15.8	16.6	19.5	19.5	15.6		17.0	18.4
4.8	1.3	3.6	1.7	1.1	3.6	4.3	1.3	6.6	3.4	4.6	4.5	6.6	8.4	6.5		7.2	6.1
8.9	1.3	6.2	6.8	9.4	7.6	7.5	5.4	6.2	5.4	7.4	6.5	9.9	11.5	9.4		10.1	9.0
4.4	3.9	6.2	1.7	5.0	4.5	5.2	4.7	3.8	3.9	4.6	4.3	4.8	3.8	7.0		5.8	4.8
14.3	11.0	12.9	13.7	6.1	12.7	11.7	9.4	9.0	11.3	7.4	8.7	9.2	7.7	9.7		9.0	9.1
6.3	1.9	4.0	2.6	6.1	5.2	4.4	6.0	5.2	4.9	5.2	5.3	6.4	1.9	4.9		3.6	5.7
2.5	14.9	8.5	7.7	12.2	6.2	8.8	7.4	5.9	5.4	11.7	8.7	4.6	9.6	9.2		9.3	6.4
0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.7	0.0	0.0	0.0	0.1	0.1	0.0	0.0		0.0	0.1

‖ Statistics are not presented for this group because too few records contained the specific data.

SOURCE: National Research Council, Survey of Earned Doctorates.

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APPENDIX TABLE A-4 Statistical Profile of Doctorate Recipients, by Race/Ethnicity and Citizenship, 1994

		Total				Native American	Asian				Black			
		Total*	U.S.	Non-U.S. Perm.	Non-U.S. Temp.	Total	Total*	U.S.	Non-U.S. Perm.	Non-U.S. Temp.	Total*	U.S.	Non-U.S. Perm.	Non-U.S. Temp.
Total Number		**41,011**	**27,105**	**3,741**	**9,393**	**145**	**9,359**	**949**	**2,591**	**5,796**	**1,669**	**1,092**	**178**	**384**
Male	%	61.5	54.3	70.4	77.9	51.0	75.5	62.3	72.4	79.0	52.8	37.3	79.8	84.6
Female		38.5	45.7	29.6	22.1	49.0	24.5	37.7	27.6	21.0	47.2	62.7	20.2	15.4
Doctoral Field														
Physical Sciences	%	16.6	13.4	25.8	22.2	7.6	24.5	18.9	29.6	23.3	6.8	4.8	11.8	10.4
Engineering		14.2	8.2	22.4	28.3	4.8	29.0	21.3	25.7	31.8	5.3	4.0	5.6	8.9
Life Sciences		18.9	18.3	23.3	19.5	16.6	21.1	25.9	25.4	18.4	17.1	10.6	17.4	35.9
Social Sciences		16.2	18.4	10.5	11.1	18.6	9.8	13.9	7.4	10.0	19.0	18.3	28.7	16.1
Humanities		11.6	13.7	8.4	6.7	16.6	4.5	7.2	4.5	4.1	8.4	9.3	6.7	6.8
Education		16.3	21.6	5.3	5.7	24.8	5.2	8.4	3.6	5.4	34.9	44.1	19.7	15.1
Professional/Other		6.3	6.5	4.3	6.5	11.0	5.9	4.4	3.9	7.1	8.5	8.8	10.1	6.8
Median Age at Doct.†	Yrs	34.1	35.1	33.7	32.7	38.9	32.7	31.9	33.2	32.7	39.5	40.6	37.9	38.2
Median Time Lapse from Bacc. to Doct.†														
Total Time	Yrs	10.8	11.5	10.9	9.8	14.4	10.2	9.0	10.9	10.0	14.3	17.2	11.0	12.4
Registered Time		7.2	7.3	7.4	6.8	7.5	7.0	7.1	7.4	6.9	7.3	7.9	7.0	6.6
Graduate School Support‡														
GI Bill	%	0.9	1.4	0.1	0.0	4.1	0.1	0.5	0.0	0.0	0.6	0.9	0.0	0.0
Other Federal§		9.4	12.7	3.3	3.0	17.2	3.5	19.7	2.1	1.5	11.0	12.2	5.6	10.7
State Government		0.9	1.2	0.4	0.4	1.4	0.3	0.7	0.3	0.3	1.6	1.8	1.7	0.8
Foreign Government		4.0	0.4	4.6	14.3	0.0	6.2	0.4	2.7	8.7	6.1	0.2	6.7	22.7
National Fellow (nonfed.)		5.0	5.7	3.6	3.6	9.7	2.7	6.7	2.4	2.3	10.7	10.3	9.6	12.2
Univ. Teaching Asst.	%	47.5	47.6	53.4	48.5	42.1	49.8	45.5	53.5	48.9	31.5	27.9	42.1	37.8
Univ. Research Asst.§		48.2	42.8	65.4	60.6	38.6	67.4	56.9	73.5	66.5	30.6	26.4	36.0	41.1
Other University		23.3	26.7	19.8	16.7	27.6	16.9	22.3	18.6	15.3	29.1	33.2	24.7	20.1
Business/Employer		5.8	7.6	3.5	2.3	6.9	2.7	5.5	3.0	2.1	4.8	6.2	5.1	0.8
Self/Family Sources		66.8	77.3	47.5	49.5	77.9	49.5	63.6	39.4	51.8	64.8	75.1	57.3	41.4
GSL (Stafford) Loan	%	19.8	29.2	5.9	0.1	33.8	2.9	23.4	2.0	0.0	23.8	31.0	32.0	0.8
Other Loans		7.3	10.0	3.0	1.7	13.1	1.6	8.4	1.0	0.7	9.0	11.1	12.4	2.1
Other Sources		3.5	3.6	2.2	3.9	4.8	2.3	3.1	1.4	2.6	5.8	3.8	5.6	11.5
Unknown Sources		6.2	4.3	3.4	5.4	3.4	3.7	3.6	2.4	4.0	7.2	5.9	10.1	6.8
Postdoctoral Plans														
Postdoctoral Study	%	27.0	23.4	39.2	34.4	22.1	37.9	38.4	43.5	35.5	19.9	16.0	26.4	28.6
Planned Employment	%	65.3	71.0	55.1	58.2	73.8	56.1	56.4	51.2	58.3	72.0	77.1	64.0	63.5
Educ. Institution ‖		38.8	44.0	26.9	31.7	49.0	27.3	26.0	21.9	29.9	50.7	57.0	43.3	37.8
Industry/Business		13.5	12.6	19.6	14.9	7.6	19.1	20.3	22.2	17.7	5.5	5.5	6.7	4.9
Government		5.0	5.5	2.3	4.9	7.6	3.5	3.7	1.7	4.3	7.5	6.1	6.2	12.2
Nonprofit		3.5	4.6	1.3	1.6	4.1	1.5	3.3	1.1	1.3	3.4	3.7	2.8	3.1
Other & Unknown		4.5	4.3	4.8	5.1	5.5	4.7	3.1	4.4	5.1	5.0	4.9	5.1	5.5
Postdoc. Plans Unknown	%	7.7	5.5	5.8	7.4	4.1	6.0	5.3	5.4	6.2	8.1	6.9	9.6	7.8
Definite Postdoc. Study	%	17.7	17.1	21.7	19.4	16.6	21.4	26.6	23.9	19.4	10.7	10.3	14.0	10.9
Seeking Postdoc. Study		9.3	6.4	17.5	15.0	5.5	16.6	11.8	19.5	16.1	9.2	5.8	12.4	17.7
Definite Employment		42.6	49.3	26.4	33.1	49.0	28.7	34.9	22.4	30.6	47.5	54.8	27.0	37.8
Seeking Employment		22.7	21.7	28.7	25.1	24.8	27.4	21.5	28.8	27.7	24.5	22.3	37.1	25.8
Employment Location After Doctorate#		**17,469**	**13,366**	**986**	**3,108**	**71**	**2,686**	**331**	**581**	**1,773**	**793**	**598**	**48**	**145**
U.S.	%	86.4	97.6	84.9	38.7	98.6	58.7	94.0	86.9	42.9	83.2	99.7	81.2	17.2
Foreign		13.5	2.3	14.9	60.9	1.4	41.0	5.4	12.7	56.9	16.6	0.2	18.8	82.8
Unknown		0.1	0.1	0.2	0.4	0.0	0.3	0.6	0.3	0.2	0.1	0.2	0.0	0.0

NOTE: Field groupings may differ from those in reports published by federal sponsors of the Survey of Earned Doctorates. See inside the back cover for a description of fields as reported in this table. Refer also to the explanatory note about this table in front of Appendix A for a discussion of past changes in the survey question on race/ethnicity.

*Includes individuals who did not report their citizenship at time of doctorate.
†The method of median computation has been revised. See page 46 for more information.
‡In this table a recipient counts once in each source category from which he or she received support. Since students indicate multiple sources of support, the vertical percentages sum to more than 100 percent. (Data on the "primary" source of support for doctorate recipients are presented in the body of the report.)
§Because federal support obtained through the university cannot always be determined, no distinction is made between federal and university research assistants in this table. Both types of support are grouped under "University Research Assistant." Federal loans are counted in the categories for loans.
‖ Includes 2-year, 4-year, and foreign colleges and universities, medical schools, and elementary/secondary schools.
#Includes only recipients with definite employment plans.

APPENDIX TABLE A-4 (Continued)

White				Puerto Rican	Mexican American				Other Hispanic				Unknown Race		
		Non-U.S.					Non-U.S.				Non-U.S.				
Total*	U.S.	Perm.	Temp.	Total	Total*	U.S.	Perm.	Temp.	Total*	U.S.	Perm.	Temp.	Total*	U.S.	Non-U.S.
27,073	**23,787**	**779**	**2,418**	**256**	**337**	**289**	**17**	**31**	**936**	**337**	**127**	**470**	**1,236**	**253**	**340**
56.9	54.8	64.7	75.9	47.7	54.0	51.6	58.8	74.2	59.7	49.3	53.5	68.7	73.6	66.0	77.4
43.1	45.2	35.3	24.1	52.3	46.0	48.4	41.2	25.8	40.3	50.7	46.5	31.3	26.4	34.0	22.6
14.7	13.7	19.0	23.5	12.1	11.6	9.7	35.3	16.1	13.9	11.9	10.2	16.2	18.4	13.0	16.5
9.7	7.9	17.2	24.7	3.9	7.1	4.8	5.9	29.0	13.5	7.4	12.6	18.1	19.7	11.1	29.4
18.1	18.4	18.0	16.5	15.2	15.4	12.8	23.5	35.5	25.4	20.8	25.2	28.9	16.9	19.8	25.3
18.0	18.5	15.7	12.6	21.5	17.5	19.0	11.8	6.5	15.9	19.6	12.6	14.3	18.5	20.6	11.5
14.0	14.1	18.4	11.4	15.6	14.2	14.5	17.6	9.7	16.8	16.6	27.6	13.8	10.5	13.4	8.2
19.1	20.9	7.1	5.1	26.2	30.0	34.3	5.9	3.2	10.8	17.5	10.2	6.2	11.2	18.2	4.7
6.5	6.5	4.7	6.2	5.5	4.2	4.8	0.0	0.0	3.7	6.2	1.6	2.6	4.7	4.0	4.4
34.5	35.0	33.9	31.7	35.9	36.2	36.8	34.2	33.1	34.6	33.7	36.2	34.6	34.3	35.2	33.2
11.0	11.4	10.0	8.5	12.3	11.4	12.1	7.9	9.1	10.5	10.0	11.7	10.4	10.3	11.5	9.9
7.3	7.3	7.3	6.5	8.1	7.3	7.3	7.0	6.8	6.7	7.0	7.5	6.0	7.2	7.7	7.0
1.3	1.5	0.0	0.0	2.0	1.8	2.1	0.0	0.0	0.4	0.9	0.8	0.0	0.2	1.2	0.0
11.2	12.1	5.8	4.1	23.4	21.1	23.5	17.6	0.0	11.2	15.1	6.3	9.8	3.6	11.5	4.1
1.1	1.2	0.5	0.4	2.0	1.2	1.4	0.0	0.0	1.4	1.8	1.6	1.1	0.3	0.8	0.6
2.8	0.5	9.1	23.6	0.8	4.2	0.7	11.8	32.3	16.0	0.6	11.8	28.1	3.6	0.0	12.9
5.3	5.3	5.6	4.9	10.5	13.1	14.5	5.9	3.2	7.9	8.6	6.3	7.9	1.2	2.4	2.6
49.3	48.9	55.8	53.1	43.0	43.0	42.2	64.7	38.7	46.8	48.4	54.3	43.8	14.7	34.8	27.1
44.6	43.5	49.9	55.2	30.5	38.3	35.3	58.8	54.8	46.3	39.2	45.7	51.7	14.2	28.1	30.0
25.7	26.5	21.8	20.3	28.1	32.3	34.6	17.6	19.4	24.1	32.3	24.4	18.3	5.8	15.0	9.7
7.3	7.8	5.0	3.2	5.5	4.7	4.8	5.9	3.2	3.3	4.5	3.1	2.6	1.2	4.3	1.2
75.5	78.5	69.2	51.6	66.0	74.8	78.5	64.7	45.2	54.0	73.0	65.4	37.4	14.6	41.1	21.2
26.0	29.2	11.3	0.2	39.8	31.2	34.6	23.5	3.2	12.2	29.1	11.8	0.2	4.9	22.1	1.5
9.2	10.0	5.6	3.3	9.0	12.8	14.5	5.9	0.0	7.8	10.1	13.4	4.7	2.0	7.1	2.1
3.8	3.6	3.3	5.5	4.7	5.0	4.8	5.9	6.5	4.7	3.3	5.5	5.5	1.5	3.6	2.6
4.1	3.8	3.5	3.4	7.4	3.0	3.1	0.0	3.2	5.7	6.5	4.7	5.1	72.2	41.1	45.0
24.4	23.1	30.9	35.9	22.7	25.5	25.3	11.8	35.5	29.3	31.2	26.0	28.9	9.6	20.6	19.7
70.2	71.8	64.2	58.6	68.0	70.6	71.3	82.4	58.1	63.8	60.5	68.5	65.1	17.9	39.1	33.5
43.1	44.3	36.6	34.1	45.7	47.2	48.4	35.3	41.9	41.5	38.3	48.8	41.9	10.7	23.3	20.0
12.9	12.9	16.7	12.1	8.6	8.3	7.3	23.5	9.7	9.4	9.5	5.5	10.4	3.1	6.7	6.2
5.5	5.6	3.5	5.2	5.5	5.0	5.2	5.9	3.2	5.2	5.3	3.1	5.7	1.5	2.4	3.2
4.4	4.8	1.3	1.9	3.5	4.7	5.2	5.9	0.0	2.4	2.4	4.7	1.7	0.6	1.2	0.9
4.5	4.3	6.2	5.3	4.7	5.3	5.2	11.8	3.2	5.3	5.0	6.3	5.3	2.1	5.5	3.2
5.4	5.1	4.9	5.4	9.4	3.9	3.5	5.9	6.5	6.9	8.3	5.5	6.0	72.5	40.3	46.8
17.5	17.0	18.6	22.5	14.5	19.6	19.4	11.8	25.8	16.7	19.3	10.2	16.6	5.7	15.0	9.4
6.9	6.1	12.3	13.4	8.2	5.9	5.9	0.0	9.7	12.6	11.9	15.7	12.3	4.0	5.5	10.3
48.3	50.0	36.3	37.4	50.4	50.7	51.6	47.1	45.2	43.6	41.5	44.1	45.1	10.1	20.2	20.3
21.9	21.8	27.9	21.3	17.6	19.9	19.7	35.3	12.9	20.2	19.0	24.4	20.0	7.8	19.0	13.2
13,086	**11,898**	**283**	**904**	**129**	**171**	**149**	**8**	**14**	**408**	**140**	**56**	**212**	**125**	**51**	**69**
93.1	97.6	83.7	37.4	99.2	93.0	99.3	87.5	28.6	57.8	97.1	75.0	27.4	57.6	88.2	36.2
6.8	2.4	16.3	61.9	0.8	7.0	0.7	12.5	71.4	42.2	2.9	25.0	72.6	40.8	11.8	60.9
0.1	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	0.0	2.9

SOURCE: National Research Council, Survey of Earned Doctorates.

APPENDIX TABLE A-5 Sources of Graduate School Support for Doctorate Recipients, by Broad Field and Gender, 1994

		Total		Physical Sciences		Engineering		Life Sciences		Social Sciences		Humanities		Education		Prof/Other Fields	
		Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women
Federal Fellow/ Trainee	N	1,158	1,134	169	68	99	52	628	657	184	247	64	54	6	38	8	18
	V*	4.9	7.6	3.3	5.1	2.0	8.7	14.8	21.5	5.9	8.1	2.7	2.5	0.2	1.0	0.5	2.0
	H*	100.0	100.0	14.6	6.0	8.5	4.6	54.2	57.9	15.9	21.8	5.5	4.8	0.5	3.4	0.7	1.6
GI Bill	N	293	93	26	3	24	4	32	13	70	39	31	7	70	19	40	8
	V	1.2	0.6	0.5	0.2	0.5	0.7	0.8	0.4	2.3	1.3	1.3	0.3	2.9	0.5	2.6	0.9
	H	100.0	100.0	8.9	3.2	8.2	4.3	10.9	14.0	23.9	41.9	10.6	7.5	23.9	20.4	13.7	8.6
Other Federal Support†	N	1,057	661	301	96	220	40	154	161	158	143	130	96	53	104	41	21
	V	4.5	4.4	5.9	7.2	4.5	6.7	3.6	5.3	5.1	4.7	5.6	4.4	2.2	2.8	2.7	2.3
	H	100.0	100.0	28.5	14.5	20.8	6.1	14.6	24.4	14.9	21.6	12.3	14.5	5.0	15.7	3.9	3.2
State Government	N	217	166	39	7	30	9	62	34	24	42	16	16	38	52	8	6
	V	0.9	1.1	0.8	0.5	0.6	1.5	1.5	1.1	0.8	1.4	0.7	0.7	1.6	1.4	0.5	0.7
	H	100.0	100.0	18.0	4.2	13.8	5.4	28.6	20.5	11.1	25.3	7.4	9.6	17.5	31.3	3.7	3.6
Foreign Government	N	1,292	348	209	37	364	17	277	89	181	57	89	75	84	53	88	20
	V	5.5	2.3	4.1	2.8	7.5	2.8	6.5	2.9	5.8	1.9	3.8	3.5	3.5	1.4	5.8	2.2
	H	100.0	100.0	16.2	10.6	28.2	4.9	21.4	25.6	14.0	16.4	6.9	21.6	6.5	15.2	6.8	5.7
National Fellow (nonfed.)	N	1,105	930	160	55	120	62	190	174	252	215	272	287	49	86	62	51
	V	4.7	6.3	3.1	4.1	2.5	10.4	4.5	5.7	8.1	7.1	11.6	13.3	2.0	2.3	4.1	5.7
	H	100.0	100.0	14.5	5.9	10.9	6.7	17.2	18.7	22.8	23.1	24.6	30.9	4.4	9.2	5.6	5.5
University Teaching Assistant	N	12,174	7,296	3,575	1,004	2,028	279	1,581	1,186	1,876	1,712	1,745	1,679	560	969	809	467
	V	51.6	49.1	69.6	74.8	41.8	46.7	37.2	38.8	60.5	56.2	74.6	77.6	23.3	25.7	53.5	51.9
	H	100.0	100.0	29.4	13.8	16.7	3.8	13.0	16.3	15.4	23.5	14.3	23.0	4.6	13.3	6.6	6.4
University Research Assistant†	N	13,453	6,309	3,971	1,023	3,796	480	2,845	1,883	1,352	1,413	423	441	466	715	600	354
	V	57.0	42.4	77.4	76.2	78.2	80.3	66.9	61.6	43.6	46.4	18.1	20.4	19.4	19.0	39.7	39.4
	H	100.0	100.0	29.5	16.2	28.2	7.6	21.1	29.8	10.0	22.4	3.1	7.0	3.5	11.3	4.5	5.6
University Fellow	N	3,788	2,430	775	204	518	87	613	472	719	611	758	661	159	250	246	145
	V	16.1	16.3	15.1	15.2	10.7	14.5	14.4	15.4	23.2	20.1	32.4	30.6	6.6	6.6	16.3	16.1
	H	100.0	100.0	20.5	8.4	13.7	3.6	16.2	19.4	19.0	25.1	20.0	27.2	4.2	10.3	6.5	6.0
Other University	N	1,907	2,074	224	77	209	39	312	318	402	537	375	408	260	551	125	144
	V	8.1	13.9	4.4	5.7	4.3	6.5	7.3	10.4	13.0	17.6	16.0	18.9	10.8	14.6	8.3	16.0
	H	100.0	100.0	11.7	3.7	11.0	1.9	16.4	15.3	21.1	25.9	19.7	19.7	13.6	26.6	6.6	6.9
Business/ Employer	N	1,476	922	264	45	410	42	130	146	152	181	104	96	269	348	147	64
	V	6.3	6.2	5.1	3.4	8.4	7.0	3.1	4.8	4.9	5.9	4.4	4.4	11.2	9.2	9.7	7.1
	H	100.0	100.0	17.9	4.9	27.8	4.6	8.8	15.8	10.3	19.6	7.0	10.4	18.2	37.7	10.0	6.9
Own Earnings	N	11,475	9,280	1,565	357	1,621	185	1,576	1,367	1,986	2,043	1,646	1,466	2,085	3,226	996	636
	V	48.6	62.4	30.5	26.6	33.4	30.9	37.1	44.7	64.1	67.1	70.4	67.8	86.7	85.7	65.9	70.7
	H	100.0	100.0	13.6	3.8	14.1	2.0	13.7	14.7	17.3	22.0	14.3	15.8	18.2	34.8	8.7	6.9
Spouse's Earnings	N	5,535	4,898	867	273	695	114	1,015	820	845	1,074	788	732	840	1,562	485	323
	V	23.5	32.9	16.9	20.3	14.3	19.1	23.9	26.8	27.3	35.3	33.7	33.8	34.9	41.5	32.1	35.9
	H	100.0	100.0	15.7	5.6	12.6	2.3	18.3	16.7	15.3	21.9	14.2	14.9	15.2	31.9	8.8	6.6
Family Support	N	5,967	3,605	1,086	245	1,450	126	940	692	953	1,004	713	695	396	613	429	230
	V	25.3	24.2	21.2	18.3	29.9	21.1	22.1	22.6	30.8	33.0	30.5	32.1	16.5	16.3	28.4	25.6
	H	100.0	100.0	18.2	6.8	24.3	3.5	15.8	19.2	16.0	27.9	11.9	19.3	6.6	17.0	7.2	6.4
Guaranteed Student Loan (Stafford)	N	4,410	3,724	598	157	341	54	756	526	1,069	1,283	795	683	527	766	324	255
	V	18.7	25.0	11.7	11.7	7.0	9.0	17.8	17.2	34.5	42.1	34.0	31.6	21.9	20.3	21.4	28.4
	H	100.0	100.0	13.6	4.2	7.7	1.5	17.1	14.1	24.2	34.5	18.0	18.3	12.0	20.6	7.3	6.8
Perkins Loan (NDSL)	N	999	960	113	42	44	12	127	114	301	372	224	205	123	159	67	56
	V	4.2	6.5	2.2	3.1	0.9	2.0	3.0	3.7	9.7	12.2	9.6	9.5	5.1	4.2	4.4	6.2
	H	100.0	100.0	11.3	4.4	4.4	1.2	12.7	11.9	30.1	38.8	22.4	21.4	12.3	16.6	6.7	5.8
Other Loans	N	645	674	60	25	75	14	104	92	159	210	92	102	90	172	65	59
	V	2.7	4.5	1.2	1.9	1.5	2.3	2.4	3.0	5.1	6.9	3.9	4.7	3.7	4.6	4.3	6.6
	H	100.0	100.0	9.3	3.7	11.6	2.1	16.1	13.6	24.7	31.2	14.3	15.1	14.0	25.5	10.1	8.8
Other Sources	N	736	691	111	43	99	14	174	173	120	135	88	77	64	187	80	62
	V	3.1	4.6	2.2	3.2	2.0	2.3	4.1	5.7	3.9	4.4	3.8	3.6	2.7	5.0	5.3	6.9
	H	100.0	100.0	15.1	6.2	13.5	2.0	23.6	25.0	16.3	19.5	12.0	11.1	8.7	27.1	10.9	9.0
Unduplicated Total‡		23,593	14,871	5,133	1,342	4,857	598	4,250	3,057	3,099	3,046	2,338	2,163	2,404	3,766	1,512	899

NOTE: In this table a recipient counts once in each source category from which he or she received support. Since students indicate multiple sources of support, the vertical percentages sum to more than 100 percent. (Data on the "primary" source of support for doctorate recipients are presented in the body of the report.) Field groupings may differ from those in reports published by federal sponsors of the Survey of Earned Doctorates. See inside the back cover for a description of fields as reported in this table. Refer also to the explanatory note about this table in front of Appendix A.

*V denotes vertical percentage; H denotes horizontal percentage.
†Because federal support obtained through the university cannot always be determined, no distinction is made between federal and university research assistants in this table. Both types of support are grouped under "University Research Assistant." Federal loans are counted in the categories for loans.
‡The 2,547 Ph.D.s who did not report sources of support are omitted from this total. Percentages are based only on known responses.

SOURCE: National Research Council, Survey of Earned Doctorates.

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APPENDIX TABLE A-6 State of Doctoral Institution of Doctorate Recipients, by Broad Field and Gender, 1994

	Total		Physical Sciences		Engineering		Life Sciences		Social Sciences		Humanities		Education		Prof./Other Fields	
	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women
U.S. Total*	25,205	15,806	5,438	1,383	5,191	635	4,516	3,218	3,349	3,275	2,479	2,264	2,610	4,073	1,622	958
Alabama	257	216	45	11	54	8	64	66	21	27	13	12	31	75	29	17
Alaska	21	3	17	2	0	0	3	0	1	1	0	0	0	0	0	0
Arizona	494	258	141	24	102	11	67	44	40	42	37	30	72	85	35	22
Arkansas	103	46	10	0	14	0	36	14	6	3	1	6	27	22	9	1
California	3,002	1,900	732	167	671	96	490	363	477	604	338	286	157	296	137	88
Colorado	483	224	156	26	117	11	64	44	47	60	29	27	52	42	18	14
Connecticut	358	263	79	27	43	8	75	55	65	61	71	78	9	27	16	7
Delaware	74	47	18	9	28	5	10	2	6	16	6	9	5	6	1	0
Dist. of Columbia	230	230	34	8	33	2	29	38	61	70	33	51	14	37	26	24
Florida	840	662	137	36	130	10	105	77	101	102	57	48	218	343	92	46
Georgia	448	323	53	25	122	14	67	59	58	66	28	34	73	103	47	22
Hawaii	100	66	22	6	4	0	21	18	32	20	12	14	8	7	1	1
Idaho	60	28	12	3	12	2	23	9	3	2	1	1	9	11	0	0
Illinois	1,371	797	281	79	272	34	209	155	219	160	172	142	143	185	75	42
Indiana	714	351	160	46	145	11	106	62	100	69	80	68	80	71	43	24
Iowa	454	228	89	19	95	8	103	59	41	31	35	30	69	58	22	23
Kansas	243	172	44	10	42	5	65	29	27	36	16	20	40	60	9	12
Kentucky	215	114	34	12	27	2	46	27	28	22	22	11	15	30	43	10
Louisiana	274	172	46	15	34	8	65	44	43	24	25	24	15	41	46	16
Maine	25	20	6	3	8	2	8	6	2	4	1	0	0	5	0	0
Maryland	543	397	117	31	119	17	117	125	77	66	59	61	34	77	20	20
Massachusetts	1,369	826	383	98	273	38	210	189	209	149	137	114	93	203	64	35
Michigan	953	557	192	47	224	21	183	121	122	106	90	78	86	148	56	36
Minnesota	507	372	77	29	100	9	135	88	58	58	37	52	57	103	43	33
Mississippi	201	118	18	5	15	1	51	11	23	18	17	4	45	70	32	9
Missouri	447	253	72	17	87	10	83	64	56	55	45	24	60	69	44	14
Montana	38	20	9	2	1	0	18	4	3	3	0	0	7	11	0	0
Nebraska	151	93	23	2	18	0	51	25	18	15	14	8	19	36	8	7
Nevada	37	18	11	3	6	0	3	3	7	1	2	1	8	10	0	0
New Hampshire	69	41	25	7	15	2	14	15	8	11	5	1	1	4	1	1
New Jersey	560	295	138	39	133	12	90	61	66	51	66	76	32	43	35	13
New Mexico	159	82	50	9	29	3	23	12	26	12	11	13	17	33	3	0
New York	2,342	1,554	547	118	428	58	364	296	384	394	317	291	181	305	121	92
North Carolina	590	394	125	37	118	17	158	112	64	63	56	67	46	87	23	11
North Dakota	37	37	10	4	1	0	14	11	5	7	3	0	4	15	0	0
Ohio	1,081	702	231	52	287	37	153	133	115	129	101	104	123	188	71	59
Oklahoma	261	144	50	9	50	5	55	12	30	21	14	14	41	75	21	8
Oregon	288	202	66	18	29	6	82	48	44	36	16	21	42	68	9	5
Pennsylvania	1,289	818	240	76	340	54	163	153	162	161	123	118	154	198	107	58
Puerto Rico	20	41	5	2	0	0	2	4	5	13	1	3	7	19	0	0
Rhode Island	161	91	62	19	34	4	19	17	21	19	24	32	1	0	0	0
South Carolina	255	188	54	17	36	6	54	43	14	10	19	13	55	90	23	9
South Dakota	37	22	2	0	4	0	11	1	6	5	0	0	14	16	0	0
Tennessee	365	285	43	17	59	9	71	40	48	62	31	22	74	122	39	13
Texas	1,634	1,011	320	93	397	40	306	208	150	181	144	115	168	285	149	89
Utah	226	109	62	7	50	6	45	25	33	28	8	8	14	29	14	6
Vermont	38	25	4	2	3	2	15	8	7	9	1	0	8	4	0	0
Virginia	569	362	107	34	146	16	100	70	70	71	40	26	55	115	51	30
Washington	463	236	103	20	77	9	120	60	51	31	56	42	36	57	20	17
West Virginia	77	50	6	1	24	1	10	10	8	9	6	4	23	25	0	0
Wisconsin	634	308	157	32	133	15	129	71	77	55	58	60	61	51	19	24
Wyoming	38	35	13	8	2	0	11	7	4	6	1	1	7	13	0	0

NOTE: Field groupings may differ from those in reports published by federal sponsors of the Survey of Earned Doctorates. See inside the back cover for a description of fields as reported in this table. Refer also to the explanatory note about this table in front of Appendix A.

*Includes the 50 states, the District of Columbia, and Puerto Rico.

SOURCE: National Research Council, Survey of Earned Doctorates.

APPENDIX TABLE A-7 Institutions Granting Doctorates, by Major Field, 1994

	1994 Total	Physics and Astronomy	Chemistry	Earth, Atmos., and Marine Sci.	Math and Computer Sci.	Engineering	Biosciences	Health Sciences	Agricultural Sciences	Psychology	Other Social Sciences	History	Eng. and Amer. Lang. and Lit.	Other Humanities	Education	Professional/ Other Fields
TOTAL ALL INSTITUTIONS*	41,011	1,692	2,254	853	2,022	5,826	5,197	1,297	1,240	3,260	3,364	800	943	3,000	6,683	2,580
ALABAMA	473	27	7	3	19	62	58	48	24	37	11	4	6	15	106	46
Alabama A & M University	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Auburn University	152	5	3	0	10	31	10	5	24	17	7	3	2	1	30	4
United States Sports Academy	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
Univ of Alabama-Birmingham	107	5	1	0	3	4	39	42	0	6	0	0	0	0	7	0
Univ of Alabama-Huntsville	29	13	0	1	4	11	0	0	0	0	0	0	0	0	0	0
Univ of Alabama-University	176	2	3	2	2	16	3	1	0	14	4	1	4	14	68	42
Univ of South Alabama	6	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0
ALASKA	24	7	0	12	0	0	3	0	0	0	2	0	0	0	0	0
Univ of Alaska	24	7	0	12	0	0	3	0	0	0	2	0	0	0	0	0
ARIZONA	752	53	31	41	40	113	70	17	24	35	47	11	11	45	157	57
Arizona State Univ	256	12	14	4	17	49	9	1	0	21	25	2	5	10	51	36
Northern Arizona Univ	54	0	0	0	0	0	4	0	0	0	2	1	1	1	45	0
Univ of Arizona	442	41	17	37	23	64	57	16	24	14	20	8	5	34	61	21
ARKANSAS	149	1	7	0	2	14	28	4	18	9	0	2	4	1	49	10
U of Arkansas-Fayetteville	130	0	7	0	2	7	17	4	18	9	0	2	4	1	49	10
U of Arkansas-Little Rock	8	1	0	0	0	7	0	0	0	0	0	0	0	0	0	0
U of Arkansas-Med Sci Campus	11	0	0	0	0	0	11	0	0	0	0	0	0	0	0	0
CALIFORNIA	4,902	246	265	126	262	767	674	113	66	682	399	114	116	394	453	225
Biola Univ	19	0	0	0	0	0	0	0	0	9	0	0	0	0	10	0
Cal Inst of Integral Studies	31	0	0	0	0	0	0	0	0	28	0	0	0	3	0	0
Cal Inst of Technology	151	31	26	10	12	53	16	0	0	0	3	0	0	0	0	0
Cal Sch Prof Psych-Alameda	83	0	0	0	0	0	0	0	0	83	0	0	0	0	0	0
Cal Sch Prof Psych-Alhambra	63	0	0	0	0	0	0	0	0	61	0	0	0	0	0	2
Cal Sch Prof Psych-Fresno	56	0	0	0	0	0	0	0	0	56	0	0	0	0	0	0
Cal Sch Prof Psych-San Diego	68	0	0	0	0	0	0	0	0	68	0	0	0	0	0	0
Claremont Graduate School	72	0	0	0	2	0	2	0	0	5	10	2	2	14	19	16
Fielding Institute	52	0	0	0	1	0	0	0	0	34	6	0	0	0	0	11
Fuller Theological Seminary	30	0	0	0	0	0	0	0	0	24	1	0	0	2	1	2
Golden Gate Baptist Theol Sem	3	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2
Graduate Theological Union	21	0	0	0	0	0	0	0	0	0	1	0	0	8	0	12
Hebrew Union College	2	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0
La Sierra Univ	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0
Loma Linda Univ	17	0	0	0	0	0	10	7	0	0	0	0	0	0	0	0
Naval Postgraduate School	15	1	0	4	5	5	0	0	0	0	0	0	0	0	0	0
Pacific Grad Sch of Psych	33	0	0	0	0	0	0	0	0	33	0	0	0	0	0	0
Pepperdine Univ	17	0	0	0	0	0	0	0	0	0	0	0	0	0	17	0
Rand Grad Sch Policy Studies	3	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0
Research Inst of Scripps Clinic	2	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0
San Diego State Univ	25	0	3	0	0	0	8	0	0	8	0	0	0	0	6	0
Saybrook Institute	11	0	0	0	0	0	0	0	0	9	2	0	0	0	0	0
Stanford Univ	551	29	20	21	30	177	67	2	3	19	48	17	12	55	27	24
U.S. International Univ	83	0	0	0	0	0	0	0	0	54	0	0	0	1	9	19
Univ of California-Berkeley	891	64	53	14	65	193	112	26	28	27	111	32	29	73	37	27
Univ of California-Davis	321	21	29	9	13	46	113	6	29	2	20	9	9	13	1	1
Univ of California-Irvine	172	7	19	0	11	21	41	1	0	10	23	4	11	18	0	6
Univ of Calif-Los Angeles	619	28	28	23	35	86	83	36	0	35	66	18	16	84	58	23
Univ of Calif-Riverside	135	11	15	0	5	0	37	0	6	12	12	2	15	9	10	1
Univ of Calif-San Diego	270	20	17	19	32	43	62	0	0	13	23	8	5	24	0	4
Univ of Calif-San Francisco	85	0	7	0	0	6	38	20	0	4	8	1	0	0	0	1
Univ of Calif-Santa Barbara	222	16	11	9	18	46	24	2	0	21	21	13	2	18	19	2
Univ of Calif-Santa Cruz	89	8	12	9	10	0	17	0	0	8	2	6	9	8	0	0
Univ of La Verne	56	0	0	0	0	0	0	0	0	0	1	0	0	0	48	7
Univ of the Pacific	22	0	4	0	0	0	3	1	0	0	0	0	0	0	14	0
Univ of San Diego	13	0	0	0	0	0	0	1	0	0	0	0	0	0	12	0
Univ of San Francisco	61	0	0	0	0	0	0	0	0	0	0	0	0	0	61	0
Univ of Santa Clara	5	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0
Univ of Southern California	504	10	20	8	23	86	40	11	0	34	38	2	6	61	100	65
Wright Institute, The	25	0	0	0	0	0	0	0	0	25	0	0	0	0	0	0
COLORADO	707	41	47	40	54	128	63	24	21	47	60	6	14	36	94	32
Colorado School of Mines	50	4	1	17	6	17	0	0	0	0	5	0	0	0	0	0
Colorado State Univ	175	3	15	7	12	44	24	3	21	18	9	0	0	0	18	1
Univ of Colorado	354	34	30	16	28	67	39	16	0	19	29	5	9	29	12	21
Univ of Denver	62	0	1	0	0	0	0	0	0	8	15	1	5	5	18	9
Univ of Northern Colorado	66	0	0	0	8	0	0	5	0	2	2	0	0	2	46	1
CONNECTICUT	621	31	44	3	28	51	104	18	8	46	80	33	14	102	36	23
Univ of Connecticut	246	7	17	1	12	35	43	7	5	22	31	5	4	12	36	9
Univ of Hartford	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Univ of New Haven	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Wesleyan Univ	21	2	7	0	2	0	4	0	0	0	0	0	0	6	0	0
Yale Univ	349	22	20	2	14	16	57	11	3	24	49	28	10	83	0	10
DELAWARE	121	4	6	8	9	33	11	0	1	10	12	3	5	7	11	1
Univ of Delaware	121	4	6	8	9	33	11	0	1	10	12	3	5	7	11	1

NOTE: Field groupings may differ from those in reports published by federal sponsors of the Survey of Earned Doctorates. See inside the back cover for a description of fields as reported in this table. Refer also to the explanatory note about this table in front of Appendix A.
*Includes the 50 states, the District of Columbia, and Puerto Rico.

APPENDIX TABLE A-7 (Continued)

	1994 Total	Physics and Astronomy	Chemistry	Earth, Atmos., and Marine Sci.	Math and Computer Sci.	Engineering	Biosciences	Health Sciences	Agricultural Sciences	Psychology	Other Social Sciences	History	Eng. and Amer. Lang. and Lit.	Other Humanities	Education	Professional/ Other Fields
DISTRICT OF COLUMBIA	460	6	20	1	15	35	57	10	0	62	69	11	7	66	51	50
American Univ	59	3	3	0	2	0	0	0	0	15	20	0	0	1	14	1
Catholic Univ of America	101	1	3	0	1	6	6	8	0	14	6	1	3	33	4	15
Gallaudet Univ	6	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0
George Washington Univ	149	0	6	1	9	23	26	1	0	15	19	1	1	3	25	19
Georgetown Univ	75	0	4	0	0	0	19	0	0	1	15	8	0	27	0	1
Howard Univ	70	2	4	0	3	6	6	1	0	17	9	1	3	2	2	14
FLORIDA	1,502	30	54	28	61	140	108	29	45	121	82	19	25	61	561	138
Barry Univ	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Caribbean Ctr Adv Stud-Miami	2	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
Florida Atlantic Univ	34	2	0	0	1	16	1	0	0	1	1	0	0	0	6	6
Florida Inst of Technology	14	0	0	2	1	7	1	0	0	0	0	0	0	0	3	0
Florida International Univ	32	0	0	0	0	0	2	0	0	2	2	0	0	0	16	10
Florida State Univ	283	10	7	8	14	3	17	3	0	23	22	10	8	35	66	57
Nova Southeastern Univ	415	0	0	0	17	0	0	0	0	17	6	0	0	0	352	23
Univ of Central Florida	45	1	0	0	1	8	0	0	0	5	0	0	0	0	28	2
Univ of Florida	436	16	36	3	16	83	56	15	44	37	37	7	6	9	40	31
Univ of Miami	115	1	5	7	4	11	15	4	1	22	6	2	4	16	16	1
Univ of South Florida	121	0	6	8	7	12	16	7	0	12	8	0	7	1	34	3
GEORGIA	771	12	37	5	24	136	77	18	31	71	53	4	16	42	176	69
Clark Atlanta Univ	41	0	2	0	0	0	2	0	0	7	10	0	1	2	13	4
Emory Univ	94	0	9	0	3	0	12	1	0	13	8	4	9	26	8	1
Georgia Inst of Technology	202	7	9	5	17	135	11	0	0	6	0	0	0	0	0	12
Georgia State Univ	115	3	2	0	1	0	2	8	0	21	9	0	2	1	47	19
Inst of Paper Sci & Tech	4	0	0	0	0	1	0	0	3	0	0	0	0	0	0	0
Medical College of Georgia	6	0	0	0	0	0	3	3	0	0	0	0	0	0	0	0
Univ of Georgia	309	2	15	0	3	0	47	6	28	24	26	0	4	13	108	33
HAWAII	166	7	4	14	3	4	22	10	7	12	40	3	2	21	15	2
Univ of Hawaii at Manoa	166	7	4	14	3	4	22	10	7	12	40	3	2	21	15	2
IDAHO	88	2	6	3	4	14	15	3	14	0	5	0	2	0	20	0
Idaho State Univ	20	0	0	0	3	0	6	2	0	0	3	0	2	0	4	0
Univ of Idaho	68	2	6	3	1	14	9	1	14	0	2	0	0	0	16	0
ILLINOIS	2,168	95	111	21	133	306	255	66	43	150	229	53	46	215	328	117
DePaul Univ	12	0	0	0	0	0	0	0	0	8	0	0	0	4	0	0
Illinois Inst of Technology	60	5	1	0	23	15	1	0	0	15	0	0	0	0	0	0
Illinois State Univ-Normal	43	0	0	0	0	0	6	0	0	0	3	1	5	2	26	0
Loyola Univ of Chicago	105	0	6	0	1	0	13	2	0	21	5	4	2	3	47	1
Lutheran Sch of Theol-Chicago	4	0	0	0	0	0	0	0	0	0	0	0	0	1	0	3
Northern Illinois Univ	107	0	2	2	1	0	7	0	0	7	12	1	2	0	73	0
Northwestern Univ	319	11	19	3	25	86	31	7	0	15	32	5	5	48	10	22
Roosevelt Univ	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
Rush Univ	19	1	0	0	0	0	10	8	0	0	0	0	0	0	0	0
Southern Ill Univ-Carbondale	172	2	4	2	2	2	17	12	1	18	18	0	3	14	54	23
Southern Ill Univ-Edwardsville	9	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0
Univ of Chicago	393	25	22	6	17	0	48	0	0	21	96	33	17	71	8	29
Univ of Health Sci-Chicago Med	28	0	0	0	0	0	18	0	0	10	0	0	0	0	0	0
Univ of Ill-Chicago	232	8	27	4	18	50	33	23	0	8	22	0	2	10	19	8
Univ of Ill-Urbana/Champaign	663	43	30	4	46	153	71	14	42	27	41	9	10	62	80	31
INDIANA	1,065	37	89	16	64	156	109	31	28	77	92	16	31	101	151	67
Ball State Univ	55	0	0	0	0	0	0	2	0	18	0	0	1	9	25	0
Indiana State Univ	34	0	0	0	0	0	3	0	0	12	2	0	0	0	17	0
Indiana Univ-Bloomington	361	12	24	7	14	0	44	8	0	16	40	13	15	61	78	29
Indiana Univ Sch of Medicine	11	0	0	0	0	0	0	11	0	0	0	0	0	0	0	0
Purdue Univ	495	16	58	9	43	140	52	10	28	21	34	1	10	14	31	28
Univ of Notre Dame	109	9	7	0	7	16	10	0	0	10	16	2	5	17	0	10
IOWA	682	22	52	5	29	103	96	25	41	24	48	14	12	39	127	45
Drake Univ	12	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0
Iowa State Univ	306	11	34	1	16	65	56	2	41	10	25	1	0	0	40	4
Maharishi International Univ	5	2	0	0	0	0	2	0	0	0	0	0	0	0	0	1
Univ of Iowa	341	9	18	4	13	36	38	23	0	14	23	13	12	39	60	39
Univ of Northern Iowa	18	0	0	0	0	2	0	0	0	0	0	0	0	0	15	1
KANSAS	415	6	24	3	21	47	47	10	37	35	28	9	7	20	100	21
Kansas State Univ	154	3	5	0	13	14	18	1	37	3	12	0	0	0	44	4
Univ of Kansas	237	3	16	3	6	20	27	5	0	32	16	9	7	20	56	17
Wichita State Univ	24	0	3	0	2	13	2	4	0	0	0	0	0	0	0	0
KENTUCKY	329	8	24	2	12	29	44	15	14	28	22	4	4	25	45	53
Southern Bapt Theol Seminary	43	0	0	0	0	0	0	0	0	3	1	0	0	11	2	26
Univ of Kentucky	228	8	18	2	11	21	32	15	14	16	18	3	4	13	26	27
Univ of Louisville	58	0	6	0	1	8	12	0	0	9	3	1	0	1	17	0

APPENDIX TABLE A-7 (Continued)

	1994 Total	Physics and Astronomy	Chemistry	Earth, Atmos., and Marine Sci.	Math and Computer Sci.	Engineering	Biosciences	Health Sciences	Agricultural Sciences	Psychology	Other Social Sciences	History	Eng. and Amer. Lang. and Lit.	Other Humanities	Education	Professional/ Other Fields
LOUISIANA	446	8	13	8	32	42	68	27	14	27	40	4	12	33	56	62
Grambling St Univ	8	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0
Louisiana St U & A&M College	217	7	8	8	12	28	26	9	14	15	15	0	6	24	27	18
Louisiana St U Med-New Orleans	17	0	0	0	0	0	11	6	0	0	0	0	0	0	0	0
Louisiana St U Med-Shreveport	6	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0
Louisiana Tech Univ	19	0	0	0	0	2	0	0	0	0	0	0	0	0	0	17
New Orleans Bapt Theol Seminary	27	0	0	0	0	0	0	0	0	1	0	0	0	4	3	19
Northeast Louisiana Univ	5	0	0	0	0	0	3	2	0	0	0	0	0	0	0	0
Southern U/A&M U-Baton Rouge	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
Tulane Univ of Louisiana	82	1	4	0	2	10	19	9	0	6	17	4	0	3	0	7
Univ of New Orleans	33	0	1	0	0	0	0	0	0	5	8	0	0	0	18	1
Univ of Southwestern Louisiana	31	0	0	0	18	2	3	0	0	0	0	0	6	2	0	0
MAINE	45	3	2	3	1	10	8	0	6	6	0	1	0	0	5	0
Univ of Maine	45	3	2	3	1	10	8	0	6	6	0	1	0	0	5	0
MARYLAND	940	47	26	17	58	136	163	62	17	48	95	32	18	70	111	40
Johns Hopkins Univ	262	12	5	8	4	32	68	43	0	6	37	23	6	13	4	1
Loyola College in Maryland	9	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0
Morgan State Univ	9	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0
Peabody Inst of Johns Hopkins	23	0	0	0	0	0	0	0	0	0	0	0	0	23	0	0
Uniformed Serv U of Hlth Sci	11	0	0	0	0	0	7	0	0	4	0	0	0	0	0	0
U of Maryland-Baltimore County	33	1	3	0	9	6	5	0	0	3	4	0	0	1	0	1
U of Maryland-College Park	526	34	17	7	45	98	45	6	17	26	54	9	12	33	98	25
U of Maryland-Eastern Shore	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0
U of Maryland Sch of Med	65	0	1	0	0	0	38	13	0	0	0	0	0	0	0	13
MASSACHUSETTS	2,195	174	141	43	123	311	319	67	13	98	260	48	39	164	296	99
American Internatl College	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0
Boston College	115	3	4	1	0	0	6	7	0	21	16	7	3	9	32	6
Boston Univ	281	25	3	0	12	11	50	11	0	15	23	3	4	43	63	18
Brandeis Univ	98	3	7	0	10	1	13	3	0	4	21	5	12	14	0	5
Clark Univ	25	2	2	0	0	0	3	0	0	5	9	1	0	0	3	0
Harvard Univ	551	31	32	8	18	9	110	33	0	11	93	29	8	66	78	25
Mass Coll Pharm & Health Sci	9	0	4	0	0	0	3	2	0	0	0	0	0	0	0	0
Mass Inst of Technology	516	73	39	31	53	193	46	1	0	7	44	0	0	8	0	21
Northeastern Univ	74	4	7	0	11	19	6	2	0	10	12	0	0	0	3	0
Simmons College	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Smith College	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Springfield College	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
Tufts Univ	79	6	3	0	0	9	30	0	0	4	21	1	3	2	0	0
Univ of Mass-Amherst	338	11	31	1	14	46	35	7	13	20	21	2	9	22	90	16
Univ of Mass-Boston	4	0	0	2	0	0	1	0	0	1	0	0	0	0	0	0
Univ of Mass-Lowell	63	16	9	0	3	13	0	1	0	0	0	0	0	0	21	0
Univ of Mass-Worcester	11	0	0	0	0	0	11	0	0	0	0	0	0	0	0	0
Worcester Polytechnic Inst	17	0	0	0	2	10	5	0	0	0	0	0	0	0	0	0
MICHIGAN	1,510	49	99	24	67	245	184	60	60	112	116	24	38	106	234	92
Andrews Univ	19	0	0	0	0	0	0	0	0	3	0	1	0	2	8	5
Eastern Michigan Univ	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
Michigan State Univ	418	17	27	2	21	30	54	5	57	23	39	3	12	17	71	40
Michigan Technological Univ	22	1	0	3	0	11	4	0	1	0	0	0	0	1	0	1
Oakland Univ	15	1	1	0	0	6	2	0	0	0	0	0	0	0	5	0
Univ of Detroit Mercy	12	0	0	0	0	1	0	0	0	11	0	0	0	0	0	0
Univ of Michigan	704	26	43	19	32	161	77	40	2	42	62	20	22	76	42	40
Wayne State Univ	263	4	28	0	14	36	47	15	0	23	10	0	4	10	68	4
Western Michigan Univ	56	0	0	0	0	0	0	0	0	10	5	0	0	0	39	2
MINNESOTA	879	25	34	5	42	109	104	78	41	68	48	13	10	66	160	76
Luther Northwestern Theol Sem	7	0	0	0	0	0	0	0	0	0	0	0	0	1	0	6
Mayo Graduate School	15	0	0	0	0	0	14	1	0	0	0	0	0	0	0	0
Univ of Minnesota-Minneapolis	706	25	34	5	42	108	90	56	41	46	39	13	10	65	92	40
Univ of St. Thomas	12	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0
Walden Univ	139	0	0	0	0	1	0	21	0	22	9	0	0	0	56	30
MISSISSIPPI	319	4	14	0	5	16	21	8	33	36	5	3	10	8	115	41
Delta State Univ	9	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0
Jackson State Univ	10	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0
Mississippi State Univ	124	0	4	0	5	9	12	1	33	5	2	0	0	0	32	21
Univ of Mississippi	78	4	1	0	0	6	2	4	0	10	3	3	4	2	24	15
U of Mississippi-Med Center	3	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0
Univ of Southern Mississippi	95	0	9	0	0	1	4	3	0	21	0	0	6	6	40	5
MISSOURI	700	26	38	7	18	97	111	7	29	62	49	5	13	51	129	58
Concordia Seminary	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Midwest Bapt Theol Seminary	25	0	0	0	0	0	0	0	0	1	0	0	0	9	0	15
St. Louis Univ	113	0	0	1	0	0	22	1	0	11	4	0	2	6	47	19
U of Missouri-Columbia	252	5	12	3	4	30	29	1	29	21	24	3	6	8	61	16
U of Missouri-Kansas City	43	0	3	0	2	0	4	3	0	14	0	1	0	6	9	1
U of Missouri-Rolla	66	7	10	1	6	42	0	0	0	0	0	0	0	0	0	0
U of Missouri-St. Louis	16	0	3	0	0	0	1	0	0	4	0	0	0	0	8	0
Washington University	183	14	10	2	6	25	55	2	0	11	21	1	5	22	4	5
MONTANA	58	2	6	0	3	1	10	0	12	5	1	0	0	0	18	0
Montana State Univ	34	2	4	0	2	1	7	0	5	0	0	0	0	0	13	0
Univ of Montana	24	0	2	0	1	0	3	0	7	5	1	0	0	0	5	0

NOTE: Field groupings may differ from those in reports published by federal sponsors of the Survey of Earned Doctorates. See inside the back cover for a description of fields as reported in this table. Refer also to the explanatory note about this table in front of Appendix A.

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APPENDIX TABLE A-7 (Continued)

	1994 Total	Physics and Astronomy	Chemistry	Earth, Atmos., and Marine Sci.	Math and Computer Sci.	Engineering	Biosciences	Health Sciences	Agricultural Sciences	Psychology	Other Social Sciences	History	Eng. and Amer. Lang. and Lit.	Other Humanities	Education	Professional/ Other Fields
NEBRASKA	244	5	11	1	8	18	29	7	40	14	19	5	9	8	55	15
Creighton Univ	5	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0
Univ of Nebraska-Lincoln	239	5	11	1	8	18	24	7	40	14	19	5	9	8	55	15
NEVADA	55	1	5	8	0	6	6	0	0	5	3	1	2	0	18	0
Univ of Nevada-Las Vegas	11	0	0	0	0	0	1	0	0	0	2	0	1	0	7	0
Univ of Nevada-Reno	44	1	5	8	0	6	5	0	0	5	1	1	1	0	11	0
NEW HAMPSHIRE	110	8	8	4	12	17	29	0	0	11	8	4	2	0	5	2
Dartmouth College	52	6	4	2	9	10	17	0	0	4	0	0	0	0	0	0
Univ of New Hampshire	58	2	4	2	3	7	12	0	0	7	8	4	2	0	5	2
NEW JERSEY	855	49	58	12	58	145	120	8	23	40	77	29	26	87	75	48
Drew Univ	28	0	0	0	0	0	0	0	0	0	1	1	2	13	0	11
Fairleigh Dickinson Univ	11	0	0	0	0	0	0	0	0	11	0	0	0	0	0	0
New Jersey Inst of Technology	28	1	0	0	4	23	0	0	0	0	0	0	0	0	0	0
Princeton Theol Seminary	13	0	0	0	0	0	0	0	0	0	0	1	0	1	0	11
Princeton Univ	268	30	24	4	27	41	19	0	0	10	44	15	6	48	0	0
Rutgers St U-New Brunswick	375	12	21	8	26	70	65	8	23	15	24	12	18	25	38	10
Rutgers St U-Newark	43	0	8	0	0	0	10	0	0	2	8	0	0	0	0	15
Seton Hall Univ	42	0	4	0	0	0	1	0	0	0	0	0	0	0	37	0
Stevens Inst of Technology	22	6	1	0	1	11	0	0	0	2	0	0	0	0	0	1
Univ of Med & Dent of NJ	25	0	0	0	0	0	25	0	0	0	0	0	0	0	0	0
NEW MEXICO	241	16	13	16	14	32	19	6	10	21	17	4	5	15	50	3
New Mexico Inst of Mining & Tech	12	1	0	8	2	1	0	0	0	0	0	0	0	0	0	0
New Mexico State Univ	64	2	5	0	5	14	6	0	10	11	0	0	0	0	10	1
Univ of New Mexico	165	13	8	8	7	17	13	6	0	10	17	4	5	15	40	2
NEW YORK	3,896	209	193	58	205	486	525	82	53	376	402	87	128	393	486	213
Adelphi Univ	37	0	0	0	0	0	0	8	0	23	1	0	0	0	1	4
Albany Medical College	8	0	0	0	0	0	8	0	0	0	0	0	0	0	0	0
Alfred Univ	5	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0
City U of NY-Grad Sch/U Ctr	286	19	19	5	11	15	53	2	0	38	45	3	14	41	0	21
Clarkson Univ	47	3	11	0	1	29	3	0	0	0	0	0	0	0	0	0
Columbia Univ	437	26	20	10	18	63	40	16	0	24	66	32	25	67	8	22
Columbia U-Teachers College	200	0	0	0	0	0	0	0	0	0	0	0	0	0	200	0
Cornell Univ	572	40	34	9	37	112	85	5	47	12	78	11	10	45	24	23
Cornell Univ Medical College	24	0	0	0	0	0	24	0	0	0	0	0	0	0	0	0
Fordham Univ	98	0	0	0	1	0	6	0	0	25	15	0	4	8	25	14
Hofstra Univ	64	0	0	0	0	0	0	0	0	44	0	0	0	0	20	0
Jewish Theol Sem of America	5	0	0	0	0	0	0	0	0	0	0	0	0	2	2	1
Juilliard School, The	6	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0
Long Island U-Brooklyn Campus	10	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0
Manhattan School of Music	11	0	0	0	0	0	0	0	0	0	0	0	0	11	0	0
New School for Social Research	40	0	0	0	0	0	0	0	0	20	19	0	0	1	0	0
New York Medical College	10	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0
New York Univ	381	10	9	0	30	1	29	22	0	38	25	15	14	81	64	43
Pace Univ	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
Polytechnic Univ	51	4	7	0	8	31	1	0	0	0	0	0	0	0	0	0
Rensselaer Polytechnic Inst	179	18	11	3	20	105	3	0	0	0	4	0	0	3	0	12
Rockefeller Univ	25	1	0	0	0	0	24	0	0	0	0	0	0	0	0	0
St. John's Univ-Queens	31	0	1	0	0	0	3	3	0	12	0	2	3	0	7	0
State Univ of NY-Albany	126	12	6	1	9	0	10	0	0	20	27	0	7	5	18	11
State Univ of NY-Binghamton Univ	95	1	4	3	8	10	5	0	0	20	22	4	5	11	0	2
State Univ of NY-Buffalo	350	10	16	4	11	41	56	22	0	31	22	5	17	27	66	22
State Univ of NY-Stony Brook	269	26	28	17	22	15	58	0	0	15	23	4	18	39	4	0
SUNY Coll-Envirn Sci & Forestry	19	0	3	2	0	0	8	0	6	0	0	0	0	0	0	0
SUNY-Hlth Sci Ctr-Brooklyn	18	0	0	0	0	0	18	0	0	0	0	0	0	0	0	0
SUNY-Hlth Sci Ctr-Syracuse	14	0	0	0	0	0	14	0	0	0	0	0	0	0	0	0
Syracuse Univ	177	8	6	3	16	30	8	2	0	11	30	3	4	8	31	17
Union Theological Seminary	5	0	0	0	0	0	0	0	0	0	0	2	0	1	0	2
Univ of Rochester	236	31	17	1	13	29	34	2	0	15	25	6	7	36	14	6
Yeshiva Univ	27	0	0	0	0	0	0	0	0	18	0	0	0	1	2	6
Yeshiva U-Einstein Coll of Med	26	0	1	0	0	0	25	0	0	0	0	0	0	0	0	0
NORTH CAROLINA	984	24	71	24	43	135	165	50	55	50	77	25	42	56	133	34
Campbell Univ	10	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0
Duke Univ	204	8	17	4	7	34	41	0	1	7	28	14	16	20	0	7
East Carolina U-Sch of Med	11	0	0	0	0	0	8	0	0	0	0	0	0	0	3	0
North Carolina St U-Raleigh	301	10	11	10	19	94	27	3	54	12	13	0	0	0	47	1
U of N Carolina-Chapel Hill	370	4	38	10	17	7	78	46	0	24	29	11	20	29	31	26
U of N Carolina-Greensboro	72	0	0	0	0	0	2	1	0	7	7	0	6	7	42	0
Wake Forest Univ	16	2	5	0	0	0	9	0	0	0	0	0	0	0	0	0
NORTH DAKOTA	74	0	5	0	9	1	15	0	10	12	0	2	1	0	19	0
North Dakota State Univ	30	0	3	0	9	1	7	0	10	0	0	0	0	0	0	0
Univ of North Dakota	44	0	2	0	0	0	8	0	0	12	0	2	1	0	19	0
OHIO	1,783	62	139	18	64	324	178	67	41	150	94	34	40	131	311	130
Air Force Inst of Technology	24	4	0	0	0	20	0	0	0	0	0	0	0	0	0	0
Bowling Green State Univ	68	0	4	0	4	0	7	2	0	17	1	2	5	16	7	3
Case Western Reserve Univ	187	2	27	0	8	61	32	12	0	10	4	4	2	5	0	20
Cleveland State Univ	29	0	3	0	0	10	2	0	0	0	0	0	0	0	7	7
Hebrew Union College	3	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0
Kent State Univ	130	10	4	1	5	0	10	4	0	23	4	3	4	7	34	21
Medical College of Ohio-Toledo	16	0	0	0	0	0	12	4	0	0	0	0	0	0	0	0

APPENDIX TABLE A-7 (Continued)

	1994 Total	Physics and Astronomy	Chemistry	Earth, Atmos., and Marine Sci.	Math and Computer Sci.	Engineering	Biosciences	Health Sciences	Agricultural Sciences	Psychology	Other Social Sciences	History	Eng. and Amer. Lang. and Lit.	Other Humanities	Education	Professional/ Other Fields
OHIO (continued)																
Miami Univ	39	0	1	1	0	0	8	0	0	11	4	0	2	1	11	0
Ohio State Univ	702	23	44	9	33	97	54	26	41	35	66	18	17	58	129	52
Ohio Univ	102	7	2	0	0	8	12	2	0	10	0	1	2	8	32	18
Univ of Akron	110	8	25	0	0	27	0	0	0	22	6	1	0	0	21	0
Univ of Cincinnati	272	5	20	7	13	71	31	15	0	15	9	4	4	33	36	9
Univ of Dayton	19	0	0	0	0	12	1	0	0	0	0	0	0	0	6	0
Univ of Toledo	74	3	9	0	1	16	3	2	0	7	0	1	4	0	28	0
Wright State Univ	8	0	0	0	0	2	6	0	0	0	0	0	0	0	0	0
OKLAHOMA	405	14	16	14	15	55	32	9	26	25	26	4	11	13	116	29
Oklahoma State Univ	205	10	9	5	6	23	15	1	26	12	9	2	6	0	65	16
Univ of Oklahoma	169	4	7	8	8	22	17	8	0	6	17	2	5	13	39	13
Univ of Tulsa	31	0	0	1	1	10	0	0	0	7	0	0	0	0	12	0
OREGON	490	20	14	21	29	35	64	20	46	31	49	3	8	26	110	14
Oregon Graduate Inst of Sci & Tech	13	1	1	3	1	4	3	0	0	0	0	0	0	0	0	0
Oregon Health Sciences Univ	23	0	0	0	0	0	11	10	0	2	0	0	0	0	0	0
Oregon State Univ	199	4	9	13	14	28	33	7	46	0	12	0	0	0	31	2
Portland State Univ	31	0	0	0	1	3	0	0	0	0	13	0	0	0	10	4
Univ of Oregon	224	15	4	5	13	0	17	3	0	29	24	3	8	26	69	8
PENNSYLVANIA	2,107	63	112	37	104	394	242	59	15	113	210	36	41	164	352	165
Bryn Mawr College	28	0	3	0	1	0	1	0	0	0	5	0	0	16	0	2
Carnegie-Mellon Univ	167	6	5	0	26	83	7	0	0	7	8	9	0	3	0	13
Drexel Univ	59	1	5	1	4	39	0	0	0	5	0	0	0	0	0	4
Duquesne Univ	14	0	1	0	0	0	0	0	0	0	0	0	1	5	0	7
Hahnemann Univ	11	0	0	0	0	0	8	2	0	1	0	0	0	0	0	0
Indiana Univ of Pennsylvania	45	0	0	0	0	0	0	0	0	0	6	0	14	8	17	0
Lehigh Univ	108	11	5	2	9	41	2	0	0	5	3	2	4	3	18	3
Med College of Pennsylvania	12	0	0	0	0	0	12	0	0	0	0	0	0	0	0	0
Pennsylvania State Univ	530	20	40	27	16	148	58	7	15	20	36	2	3	24	90	24
Phila Coll of Pharm & Sci	4	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0
Temple Univ	289	2	8	0	11	2	25	5	0	37	28	5	4	24	122	16
Thomas Jefferson Univ	26	0	0	0	0	0	26	0	0	0	0	0	0	0	0	0
Univ of Pennsylvania	459	9	15	4	26	53	65	13	0	18	91	14	8	54	35	54
Univ of Pittsburgh	329	14	24	3	11	28	36	28	0	20	33	4	7	26	60	35
Villanova Univ	4	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0
Westminster Theol Seminary	8	0	0	0	0	0	0	0	0	0	0	0	0	1	0	7
Widener Univ	14	0	0	0	0	0	0	4	0	0	0	0	0	0	10	0
PUERTO RICO	61	1	6	0	0	0	6	0	0	18	0	2	0	2	26	0
Caribbean Ctr for Adv Studies	10	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0
Inter Amer U PR-Metro Campus	13	0	0	0	0	0	0	0	0	0	0	0	0	0	13	0
Univ of Puerto Rico	38	1	6	0	0	0	6	0	0	8	0	2	0	2	13	0
RHODE ISLAND	252	17	24	16	24	38	26	5	5	25	15	6	18	32	1	0
Brown Univ	162	13	14	7	20	20	18	0	0	7	15	6	9	32	1	0
Univ of Rhode Island	90	4	10	9	4	18	8	5	5	18	0	0	9	0	0	0
SOUTH CAROLINA	443	9	22	15	25	42	57	29	11	9	15	5	15	12	145	32
Clemson Univ	115	4	7	3	16	33	18	0	11	0	1	0	0	0	12	10
Medical Univ of South Carolina	23	0	0	0	0	1	18	4	0	0	0	0	0	0	0	0
South Carolina State Univ	17	0	0	0	0	0	0	0	0	0	0	0	0	0	17	0
Univ of South Carolina	288	5	15	12	9	8	21	25	0	9	14	5	15	12	116	22
SOUTH DAKOTA	59	0	2	0	0	4	6	0	6	7	4	0	0	0	30	0
S Dakota Sch of Mines & Tech	4	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0
South Dakota State Univ	15	0	2	0	0	0	3	0	6	0	4	0	0	0	0	0
Univ of South Dakota	40	0	0	0	0	0	3	0	0	7	0	0	0	0	30	0
TENNESSEE	650	14	21	7	18	68	89	13	9	67	43	4	16	33	196	52
East Tennessee State Univ	34	0	0	0	0	0	10	0	0	0	0	0	0	0	24	0
Geo Peabody Coll for Teachers	47	0	0	0	0	0	0	0	0	0	0	0	0	0	47	0
Meharry Medical College	8	0	0	0	0	0	8	0	0	0	0	0	0	0	0	0
Mid-America Bapt Theol Sem	10	0	0	0	0	0	0	0	0	0	0	0	0	1	0	9
Middle Tennessee State Univ	18	0	0	0	0	0	1	0	0	0	4	2	5	0	6	0
Tennessee State Univ	26	0	0	0	0	0	0	0	0	0	0	0	0	0	26	0
Tennessee Technological Univ	15	0	0	0	0	15	0	0	0	0	0	0	0	0	0	0
Univ of Memphis	113	0	2	0	6	3	3	1	0	31	1	0	0	3	45	18
Univ of Tennessee-Knoxville	226	9	12	7	6	24	33	5	9	21	24	1	4	6	42	23
Univ of Tennessee-Memphis	12	0	0	0	0	0	7	5	0	0	0	0	0	0	0	0
Vanderbilt Univ	141	5	7	0	6	26	27	2	0	15	14	1	7	23	6	2
TEXAS	2,645	103	137	72	101	437	325	98	91	170	161	42	48	169	453	238
Baylor College of Medicine	49	0	0	0	0	0	46	3	0	0	0	0	0	0	0	0
Baylor Univ	37	2	1	1	2	0	1	0	0	1	0	0	1	7	19	2
Dallas Theological Seminary	9	0	0	0	0	0	0	0	0	0	0	0	0	2	0	7
East Texas State Univ	50	0	0	0	0	0	0	0	0	7	0	0	0	0	43	0
Lamar Univ	3	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0
Rice Univ	108	18	12	11	8	20	10	0	0	2	11	1	5	9	0	1
St. Mary's Univ	5	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0
Sam Houston State Univ	5	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0
Southern Methodist Univ	47	0	0	4	9	15	2	0	0	2	10	0	0	4	0	1
Southwestern Bapt Theol Sem	49	0	0	0	0	0	0	0	0	0	0	2	0	7	10	30
Texas A&M Univ-College Station	588	9	52	21	28	135	63	9	73	21	32	6	7	2	87	43
Texas A&M Univ-Kingsville	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0

NOTE: Field groupings may differ from those in reports published by federal sponsors of the Survey of Earned Doctorates. See inside the back cover for a description of fields as reported in this table. Refer also to the explanatory note about this table in front on Appendix A.

APPENDIX TABLE A-7 (Continued)

	1994 Total	Physics and Astronomy	Chemistry	Earth, Atmos., and Marine Sci.	Math and Computer Sci.	Engineering	Biosciences	Health Sciences	Agricultural Sciences	Psychology	Other Social Sciences	History	Eng. and Amer. Lang. and Lit.	Other Humanities	Education	Professional/ Other Fields
TEXAS (continued)																
Texas Christian Univ	23	0	3	0	0	0	0	0	0	8	0	8	0	4	0	0
Texas Southern Univ	14	0	0	0	0	0	0	0	0	0	0	0	0	0	14	0
Texas Tech Univ	168	5	15	4	4	21	14	0	18	20	11	2	1	15	21	17
Texas Woman's Univ	103	0	0	0	0	0	3	22	0	15	18	0	2	6	26	11
Univ of Dallas	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
Univ of Houston	204	9	12	3	6	41	11	0	0	24	9	7	6	5	51	20
Univ of North Texas	175	9	5	0	9	1	15	0	0	17	8	3	9	14	61	24
Univ of North Texas-Hlth Sci Ctr	5	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0
Univ of St. Thomas	2	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Univ of Texas-Arlington	76	2	4	0	8	28	1	0	0	2	1	0	0	3	0	27
Univ of Texas-Austin	712	39	29	17	24	168	52	27	0	35	43	13	17	82	117	49
Univ of Texas-Dallas	56	8	4	5	3	3	4	1	0	2	13	0	0	8	0	5
Univ of Texas-El Paso	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0
U Tex-Hlth Sci Ctr-Houston	75	1	0	2	0	0	39	33	0	0	0	0	0	0	0	0
U Tex-Hlth Sci Ctr-San Antonio	20	0	0	0	0	0	19	1	0	0	0	0	0	0	0	0
U Tex-Med Branch-Galveston	15	0	0	0	0	0	14	1	0	0	0	0	0	0	0	0
U Tex-Southwestern Med Ctr	38	1	0	0	0	2	26	1	0	8	0	0	0	0	0	0
UTAH	335	11	38	7	13	56	43	17	10	34	27	2	2	12	43	20
Brigham Young Univ	72	3	8	0	2	7	5	3	1	15	7	0	0	3	18	0
Univ of Utah	202	6	28	6	10	37	28	14	0	10	13	2	2	9	18	19
Utah State Univ	61	2	2	1	1	12	10	0	9	9	7	0	0	0	7	1
VERMONT	63	0	6	0	0	5	22	0	1	16	0	0	0	1	12	0
Middlebury College	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Univ of Vermont	62	0	6	0	0	5	22	0	1	16	0	0	0	0	12	0
VIRGINIA	931	25	44	23	49	162	110	27	33	66	75	19	16	31	170	81
College of William & Mary	57	7	1	10	4	0	4	0	1	0	0	4	0	2	24	0
George Mason Univ	78	0	0	1	12	5	3	8	0	15	16	0	0	0	11	7
Old Dominion Univ	41	1	0	5	3	15	3	2	0	1	7	0	0	0	3	1
Regent Univ	6	0	0	0	0	0	0	0	0	0	0	0	0	1	0	5
Union Theological Seminary	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Univ of Virginia	291	12	12	2	14	44	28	9	0	18	32	15	16	28	57	4
Virginia Commonwealth Univ	113	0	9	0	0	0	44	7	0	18	4	0	0	0	6	25
Virginia Polytech Inst & St U	344	5	22	5	16	98	28	1	32	14	16	0	0	0	69	38
WASHINGTON	699	20	34	34	35	86	96	35	49	30	52	15	27	56	93	37
Gonzaga Univ	19	0	0	0	0	0	0	0	0	0	0	0	0	0	19	0
Seattle Univ	23	0	0	0	0	0	0	0	0	0	0	0	0	0	23	0
Univ of Washington	455	14	31	26	29	51	65	26	28	15	30	14	24	53	29	20
Washington State Univ	202	6	3	8	6	35	31	9	21	15	22	1	3	3	22	17
WEST VIRGINIA	127	2	3	1	1	25	17	2	1	12	5	5	3	2	48	0
Marshall Univ	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
West Virginia Univ	126	2	3	1	1	25	16	2	1	12	5	5	3	2	48	0
WISCONSIN	942	44	64	18	63	148	135	13	52	44	88	28	21	69	112	43
Marquette Univ	51	0	2	0	2	7	2	0	0	2	0	2	3	8	21	2
Medical College of Wisconsin	17	0	0	0	0	0	17	0	0	0	0	0	0	0	0	0
Univ of Wisconsin-Madison	782	38	50	18	57	133	107	10	52	33	76	26	10	57	81	34
Univ of Wisconsin-Milwaukee	92	6	12	0	4	8	9	3	0	9	12	0	8	4	10	7
WYOMING	73	2	7	9	3	2	12	0	6	6	4	2	0	0	20	0
Univ of Wyoming	73	2	7	9	3	2	12	0	6	6	4	2	0	0	20	0

Top 50 Doctorate-Granting Institutions, 1994

1.	Univ of California-Berkeley	891	
2.	Univ of Wisconsin-Madison	782	
3.	Univ of Texas-Austin	712	
4.	Univ of Minnesota-Minneapolis	706	
5.	Univ of Michigan	704	
6.	Ohio State University	702	
7.	Univ of Illinois-Urbana/Champaign	663	
8.	Univ of California-Los Angeles	619	
9.	Texas A&M Univ-College Station	588	
10.	Cornell Univ	572	
11.	Stanford Univ	551	
12.	Harvard Univ	551	
13.	Pennsylvania State Univ	530	
14.	Univ of Maryland-College Park	526	
15.	Massachusetts Inst of Technology	516	
16.	Univ of Southern California	504	
17.	Purdue Univ	495	
18.	Univ of Pennsylvania	459	
19.	Univ of Washington	455	
20.	Univ of Arizona	442	
21.	Columbia Univ	437	
22.	Univ of Florida	436	
23.	Michigan State Univ	418	
24.	Nova Southeastern Univ	415	
25.	Univ of Chicago	393	
26.	New York Univ	381	
27.	Rutgers State Univ-New Brunswick	375	
28.	Univ of North Carolina-Chapel Hill	370	
29.	Indiana Univ-Bloomington	361	
30.	Univ of Colorado	354	
31.	State Univ of New York-Buffalo	350	
32.	Yale University	349	
33.	Virginia Polytech Inst & State Univ	344	
34.	Univ of Iowa	341	
35.	Univ of Massachusetts-Amherst	338	
36.	Univ of Pittsburgh	329	
37.	Univ of California-Davis	321	
38.	Northwestern Univ	319	
39.	Univ of Georgia	309	
40.	Iowa State Univ	306	
41.	North Carolina State Univ-Raleigh	301	
42.	Univ of Virginia	291	
43.	Temple Univ	289	
44.	Univ of South Carolina	288	
45.	City U of NY-Grad Sch/Univ Ctr	286	
46.	Florida State Univ	283	
47.	Boston Univ	281	
48.	Univ of Cincinnati	272	
49.	Univ of California-San Diego	270	
50.	State Univ of New York-Stony Brook	269	

SOURCE: National Research Council, Survey of Earned Doctorates.

APPENDIX B: Trend Tables, 1984-1994

Appendix B includes the following two tables:

B-1 Number of Doctorate Recipients, by Subfield, 1984-1994
B-2 Number of Doctorate Recipients, by Gender, Race/Ethnicity, and Citizenship, 1975, 1979, and 1984-1994

*** IMPORTANT NOTICE ***

The estimates reported for the Survey of Earned Doctorates (SED) are simple tabulations of all available information with no adjustment for nonresponse. Therefore, differences in response rates from year to year can produce numerical fluctuations that are unrelated to real trends.

Although response to the SED has been 95 to 98 percent in most years, it declined to 92 percent during the 1980s. In an effort to improve the response rate, the survey methodology was modified in the years after 1989. Response has risen as hoped, stabilizing around 95 percent during the last four years (1991 to 1994). (Note: These percentages represent *self-report rates*, i.e., the proportion of questionnaires completed by doctorate recipients. While survey forms containing partial information filled in by either the doctoral institution or staff of the National Research Council are not included in these rates, tables in this report incorporate the available data from these forms.) The self-report rate for 1994 may increase slightly in the next year if additional questionnaires are received from doctorate recipients. See page 82 in Appendix C for a table giving survey response rates from 1964 to 1994.

Item response rates have shown a parallel improvement since 1990—a natural consequence of the increase in the overall self-report rate, as well as a result of format revisions to the questionnaire and follow-ups for missing information. In 1990, new follow-up procedures were implemented to increase coverage of several variables: birth year, gender, race/ethnicity, citizenship status, country of citizenship, baccalaureate year and institution, and postgraduation plans. Response rates for these variables have since improved—especially for citizenship and race/ethnicity, resulting in an increase in the reported numbers of minority Ph.D.s. The data for a given year are updated the following year with any responses received *after* survey closure. Postsurvey adjustment was most significant for 1990 and 1991 Ph.D.s, with the largest impact on the number of blacks. For both of these years, the total number of black Ph.D.s increased by about 7.5 percent in the year after survey closure. The survey cycle was then extended to allow receipt of more follow-up information before closure, resulting in much smaller postsurvey adjustments for both 1992 and 1993 data (a 1.4 percent increase in black Ph.D.s for 1992 and only a 0.2 percent increase for 1993). The same is expected for 1994 data.

Adjustments to data are presented in reports subsequent to the initial report for a survey. Updates for 1992 appeared in *Summary Report 1993*, and those for 1993 are included in this year's report (see Appendix Table B-2 for adjustments to racial/ethnic data). The data for 1994 will likewise be subject to further revision, but as for the last two years, adjustments are expected to be minimal. Updates to 1994 data will be presented in next year's report.

In using SED data, the reader should keep in mind that numerical trends are affected by fluctuations in response rates. Increasing or decreasing numbers in a citizenship or racial/ethnic group reflect to some degree any change in both overall survey response and item response.

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TABLE B-1: Table B-1 presents data for the most recent decade by subfield of doctorate. In general, the subfields correspond to the fields on the questionnaire's Specialties List located at the back of this report; some, however, do not appear on the current Specialties List because they are no longer included in the survey taxonomy. A dash (-) in a column indicates that the field was not on the Specialties List for that year.

Field groupings in this table may differ from those in reports published by federal sponsors of the Survey of Earned Doctorates (SED); see inside the back cover for a description of field groupings as reported in these tables. The "general" field categories—e.g., "chemistry, general"—include individuals who either received the doctorate in the general subject area or did not indicate a particular specialty field. The "other" field categories—e.g., "chemistry, other"—include individuals whose specified doctoral discipline was not among the specialty fields.

The seven tables in Appendix A present additional information on the most recent cohort of Ph.D.s by field of doctorate.

TABLE B-2: Table B-2 displays, by gender and citizenship, data on the race/ethnicity of doctorate recipients for 1975 (the first year reliable racial/ethnic data were available), 1979, and the last decade. Table B-2 contains three panels, each displayed on a separate page. The first panel includes all doctorates; the others disaggregate the data by gender.

The reader should note that numbers in Table B-2 have been revised since publication of Summary Report 1993. Because of late questionnaire returns and responses to follow-ups for missing information, data are subject to revision in the year after survey closure. New follow-up procedures implemented in 1990 and later years have increased coverage of several variables, including citizenship and race/ethnicity. One result has been greater postsurvey adjustment to racial/ethnic data than in earlier years. (Note: The greatest adjustment was to the numbers of black Ph.D.s in 1990 and 1991—an increase of about 7.5 percent each year.) Updates to 1993 racial/ethnic data are shown in Table B-2 in this year's report. See the notice on page 71 for additional information on changes in response rates and their impact on time-series data.

The racial/ethnic question has undergone several revisions over the years. In 1977, it was modified to correspond to a standard question format recommended by the Federal Interagency Committee on Education and adopted by the Office of Management and Budget (OMB) for use in federally sponsored surveys; an explanation of the effect of these changes is detailed on page 13 of *Summary Report 1977*. (Note: Changes in the OMB guidelines prompted the moving of persons having origins in the Indian subcontinent from the white category to the Asian category.) In 1980, the item was further revised in two ways: (1) the Hispanic category was subdivided into Puerto Rican, Mexican American, and other Hispanic to provide more detail for users of the racial/ethnic data, and (2) respondents were asked to check only one racial category. (Before 1980, doctorate recipients could check more than one category to indicate their race.) The item was modified again in 1982 to separate the questions on race and ethnicity. Since then,

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respondents have been asked to first check one of the four racial group categories (American Indian, Asian, black, or white) and then indicate whether or not they are Hispanic. In Table B-2, *Ph.D.s who reported Hispanic heritage, regardless of racial designation, are counted as Hispanic.* The remaining survey respondents are then counted in the respective racial groups. (Note: Doctorate recipients who checked the category "American Indian or Alaskan Native" are identified as Native American in this report.)

Tables A-2 and A-4 in Appendix A present additional information on the most recent cohort of Ph.D.s by race/ethnicity.

APPENDIX TABLE B-1 Number of Doctorate Recipients, by Subfield, 1984-1994

	Year of Doctorate										
	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
TOTAL ALL FIELDS	31,337	31,298	31,899	32,367	33,499	34,324	36,067	37,518	38,850	39,755	41,011
PHYSICAL SCIENCES	4,452	4,531	4,807	5,030	5,309	5,455	5,859	6,279	6,501	6,497	6,821
MATHEMATICS	698	688	729	740	749	859	892	1,039	1,058	1,146	1,118
Applied Mathematics	108	116	135	131	142	158	185	193	213	188	204
Algebra	65	55	46	57	54	50	39	72	69	84	74
Analysis and Functional Analysis	71	83	81	86	76	103	90	132	105	105	105
Geometry	27	35	38	30	44	47	42	66	45	44	34
Logic	25	30	23	18	20	12	19	23	28	19	29
Number Theory	27	18	20	15	26	23	26	30	25	42	36
Mathematical Statistics	181	150	141	143	152	167	157	206	217	228	204
Topology	42	35	34	41	27	37	50	57	58	54	35
Computing Theory and Practice	13	15	10	14	12	12	12	19	12	18	16
Operations Research	27	22	29	22	29	22	29	16	22	37	26
Mathematics, General	78	85	125	137	134	177	191	180	209	276	284
Mathematics, Other	34	44	47	46	33	51	52	45	55	51	71
COMPUTER SCIENCE	295	310	399	450	515	612	705	800	869	880	904
Computer Science	256	249	355	384	442	519	612	720	791	825	834
Information Sciences and Systems	39	61	44	66	73	93	93	80	78	55	70
PHYSICS AND ASTRONOMY	1,080	1,080	1,187	1,237	1,302	1,274	1,393	1,411	1,537	1,544	1,692
Astronomy	42	43	52	46	66	49	52	50	55	76	65
Astrophysics	56	57	57	54	64	64	76	75	79	69	78
Acoustics	21	10	15	17	16	15	21	13	18	27	20
Chemical and Atomic/Molecular	77	58	70	79	77	74	87	76	85	95	140
Electron	2	4	2	6	2	4	2	1	-	-	-
Elementary Particles	138	154	147	159	174	135	163	182	153	170	176
Fluids	11	16	6	21	17	14	17	14	17	19	12
Nuclear	72	86	89	74	88	81	73	66	86	82	90
Optics	53	51	58	50	65	78	76	85	94	96	104
Plasma and High-Temperature	73	55	61	72	65	61	42	58	65	62	79
Polymer	8	11	11	15	20	7	11	17	17	29	29
Solid State and Low-Temperature	258	248	280	287	252	296	306	372	408	336	388
Physics, General	170	176	222	238	271	269	323	247	297	340	343
Physics, Other	99	111	117	119	125	127	144	155	163	143	168
CHEMISTRY	1,765	1,836	1,903	1,975	2,015	1,970	2,100	2,193	2,213	2,138	2,254
Analytical	228	285	257	314	301	289	293	304	304	286	333
Inorganic	233	251	260	240	250	256	242	260	268	237	262
Nuclear	18	7	18	13	7	6	13	14	7	8	10
Organic	525	494	511	511	531	511	452	538	512	518	543
Medicinal/Pharmaceutical	56	60	58	65	73	64	48	82	68	99	102
Physical	329	304	293	302	318	310	325	364	398	336	333
Polymer	63	84	72	96	81	78	81	111	83	107	117
Theoretical	37	48	41	46	50	46	55	45	59	53	52
Chemistry, General	183	213	289	297	310	312	524	400	449	432	447
Chemistry, Other	93	90	104	91	94	98	67	75	65	62	55
EARTH, ATMOS., & MARINE SCI.	614	617	589	628	728	740	769	836	824	789	853
Atmospheric Physics and Chemistry	11	16	21	24	19	15	18	20	36	13	27
Atmospheric Dynamics	25	21	16	17	25	16	20	21	23	23	27
Meteorology	28	23	27	17	35	27	20	31	28	34	32
Atmos. Sci./Meteorology, General	5	10	7	16	14	14	23	26	27	22	37
Atmos. Sci./Meteorology, Other	12	10	7	13	10	15	2	10	6	7	6
Geology	124	111	118	114	144	165	166	192	166	197	194
Geochemistry	43	48	37	31	46	39	56	64	62	50	59
Geophysics and Seismology	68	92	89	75	83	87	91	117	108	101	106
Paleontology	35	23	16	21	24	17	21	24	25	21	17
Mineralogy, Petrology	28	28	17	24	19	36	26	36	29	9	21
Stratigraphy, Sedimentation	16	23	14	22	30	24	25	29	23	28	27
Geomorphology and Glacial Geology	9	13	11	18	9	10	14	18	12	16	13
Applied Geology	7	8	4	5	7	6	6	1	-	-	-
Geological & Related Sci., General	10	11	12	18	8	19	31	30	18	15	18
Geological & Related Sci., Other	25	11	12	29	31	28	28	33	31	17	24
Environmental Science	45	42	35	29	58	68	50	35	57	68	61
Hydrology and Water Resources	18	17	16	18	24	24	13	16	29	25	30
Oceanography	78	68	78	73	81	87	89	85	82	98	91
Marine Sciences	21	24	22	38	28	26	39	27	32	27	34
Misc. Physical Sciences, Other	6	18	30	26	33	17	31	21	30	18	29
ENGINEERING	2,913	3,166	3,376	3,712	4,187	4,543	4,894	5,215	5,438	5,698	5,826
Aerospace, Aeronautic. & Astronautic.	119	124	118	142	150	178	192	207	234	228	230
Agricultural	74	60	52	74	70	102	101	84	84	86	89
Bioengineering and Biomedical	70	69	67	75	114	115	129	149	147	171	175
Ceramic Sciences	25	19	25	42	30	35	43	58	42	42	39
Chemical	361	440	476	527	624	625	561	621	607	624	630
Civil	351	358	387	441	488	498	505	509	540	563	602
Communications	11	30	23	26	24	25	35	21	30	22	33
Computer	56	55	77	62	100	117	131	178	175	167	202
Electrical, Electronics	593	631	706	691	886	995	1,110	1,206	1,278	1,353	1,440

NOTE: Dash (-) indicates that the field was not on the questionnaire's Specialties List that year. Field groupings may differ from those in reports published by federal sponsors of the Survey of Earned Doctorates. See inside the back cover for a description of fields as reported in this table. Refer also to the explanatory note about this table in front of Appendix B.

	Year of Doctorate										
	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
Engineering Mechanics	91	89	94	113	105	110	111	113	132	128	132
Engineering Physics	8	12	13	13	9	16	16	23	25	21	17
Engineering Science	28	31	30	26	32	27	37	42	51	55	46
Environmental Health Engineering	57	33	42	36	43	40	48	66	54	61	82
Industrial/Manufacturing	84	92	101	120	127	162	151	165	196	236	228
Materials Science	168	188	187	238	252	257	307	361	365	416	433
Mechanical	336	424	442	544	610	650	773	762	855	903	883
Metallurgical	78	96	93	112	92	88	90	70	78	77	67
Mining and Mineral	16	16	22	27	17	33	39	38	26	24	23
Naval Architecture, Marine Eng.	5	8	9	7	9	9	8	5	-	-	-
Nuclear	120	96	98	84	104	86	114	107	120	108	85
Ocean	11	25	14	24	21	20	17	21	21	24	29
Operations Research	50	54	54	51	44	68	46	76	56	56	47
Petroleum	17	24	18	23	33	29	49	28	54	52	42
Polymer/Plastics	31	40	37	34	28	58	48	42	64	61	53
Systems	52	57	33	47	44	30	51	48	37	57	51
Engineering, General	29	26	55	54	49	61	75	78	64	47	39
Engineering, Other	72	69	103	79	82	109	107	137	103	116	129
LIFE SCIENCES	5,758	5,781	5,734	5,754	6,165	6,341	6,604	6,930	7,114	7,394	7,734
BIOLOGICAL SCIENCES	3,880	3,793	3,807	3,839	4,112	4,115	4,327	4,646	4,798	5,091	5,197
Biochemistry	606	581	576	573	613	669	678	765	715	846	805
Biophysics	90	69	72	86	97	87	103	100	125	103	123
Biotechnology Research	-	-	-	-	-	-	-	-	-	8	14
Bacteriology	12	17	12	13	7	11	15	11	13	14	18
Plant Genetics	20	31	20	26	26	18	31	23	33	41	30
Plant Pathology	30	38	28	33	30	22	37	50	32	41	40
Plant Physiology	70	58	52	62	74	47	51	65	68	48	70
Botany, Other	126	120	121	106	112	117	104	105	107	105	117
Anatomy	103	135	86	92	88	80	70	77	75	76	66
Biometrics and Biostatistics	49	40	30	37	47	46	47	59	63	74	71
Cell Biology	123	100	130	127	118	133	145	149	188	231	236
Ecology	202	200	183	158	155	161	166	189	180	176	201
Developmental Biology/Embryology	15	15	9	6	7	10	22	37	48	57	62
Endocrinology	30	17	17	19	21	21	24	33	27	16	26
Entomology	156	173	170	123	133	139	147	138	139	114	123
Biological Immunology	133	124	146	136	179	152	153	177	181	169	161
Molecular Biology	275	277	298	303	364	413	413	481	527	582	597
Microbiology	346	289	326	301	333	340	335	372	377	433	423
Neuroscience	145	156	120	153	163	181	192	238	238	276	284
Nutritional Sciences	109	113	122	141	127	128	118	106	132	134	147
Parasitology	30	21	25	16	20	20	13	20	17	17	22
Toxicology	97	99	104	115	108	111	91	86	105	100	119
Human and Animal Genetics	82	105	91	113	118	112	153	160	142	172	203
Human and Animal Pathology	88	110	91	127	112	105	101	122	114	130	129
Human and Animal Pharmacology	237	235	245	234	252	241	243	262	278	273	256
Human and Animal Physiology	237	245	240	248	225	272	278	272	266	271	287
Zoology, Other	158	147	155	139	167	132	122	125	134	114	117
Biological Sciences, General	190	190	213	229	256	231	333	278	315	306	289
Biological Sciences, Other	121	88	125	123	160	116	142	146	159	164	161
HEALTH SCIENCES	722	729	770	800	882	974	956	1,042	1,112	1,197	1,297
Speech-Lang. Pathology & Audiology	104	99	82	107	93	91	93	90	82	98	95
Environmental Health	40	31	39	29	52	35	38	38	44	38	51
Health Systems/Services Admin.	-	-	-	-	-	-	-	-	-	35	53
Public Health	53	103	103	96	121	129	123	132	157	153	143
Epidemiology	103	76	80	86	97	107	102	115	108	120	168
Exercise Physiology/Sci., Kinesiology	-	-	-	-	-	-	-	-	-	-	87
Nursing	161	183	216	218	247	308	261	326	338	373	336
Pharmacy	102	106	104	133	95	111	116	115	160	146	148
Rehabilitation/Therapeutic Services	-	-	-	-	-	-	-	17	25	36	43
Veterinary Medicine	46	51	41	31	48	48	70	56	63	61	56
Health Sciences, General	14	13	27	12	29	19	36	28	30	38	41
Health Sciences, Other	99	67	78	88	100	126	117	125	105	99	76
AGRICULTURAL SCIENCES	1,156	1,259	1,157	1,115	1,171	1,252	1,321	1,242	1,204	1,106	1,240
Agricultural Economics	159	148	160	139	156	164	145	168	141	137	162
Agricultural Business & Management	-	-	-	-	-	2	2	1	-	1	-
Animal Breeding and Genetics	28	28	25	23	27	23	22	18	23	18	17
Animal Nutrition	71	78	65	82	54	67	54	57	41	52	58
Dairy Science	-	-	-	-	12	16	20	19	14	11	11
Poultry Science	-	-	-	-	10	11	17	13	22	16	21
Fisheries Science and Management	45	36	31	32	42	34	42	39	26	38	48
Animal Sciences, Other	90	95	91	76	86	95	90	92	97	74	86
Agronomy and Crop Science	137	158	159	143	141	140	143	117	123	104	143
Plant Breeding and Genetics	78	88	78	70	83	64	87	69	82	68	81
Plant Pathology	57	89	85	76	46	63	64	90	63	58	55
Plant Protection-Pest Management	-	-	-	-	1	6	4	2	-	-	-
Plant Sciences, Other	20	21	22	20	23	15	23	17	29	28	24
Food Sciences	113	136	121	131	16	1	-	-	-	-	-
Food Distribution	-	-	-	-	-	-	-	-	-	-	1
Food Engineering	-	-	-	-	6	11	10	12	14	9	16
Food Sciences, Other	-	-	-	-	119	147	141	137	151	141	152
Soil Sciences	99	97	103	74	18	-	-	-	-	-	-
Soil Chemistry/Microbiology	-	-	-	-	33	28	27	24	24	26	21
Soil Sciences, Other	-	-	-	-	62	75	91	78	63	59	69
Horticulture Science	66	76	60	71	61	75	101	78	65	62	65

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APPENDIX TABLE B-1 (Continued)

	Year of Doctorate										
	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
Wildlife Management	31	38	20	23	3	-	-	-	-	-	-
Forestry Science	94	105	88	100	15	-	-	-	-	-	-
Forest Biology	-	-	-	-	21	22	27	17	29	18	20
Forest Engineering	-	-	-	-	3	1	2	2	2	3	-
Forest Management	-	-	-	-	18	21	14	22	16	17	17
Wood Sci. and Pulp/Paper Tech.	-	-	-	-	7	16	16	16	21	20	26
Conservation/Renewable Nat. Res.	-	-	-	-	7	12	16	19	9	13	21
Forestry and Related Sci., Other	-	-	-	-	35	57	62	45	62	55	59
Wildlife/Range Management	-	-	-	-	36	52	58	59	55	54	52
Agricultural Sciences, General	1	5	4	5	9	7	5	3	9	10	4
Agricultural Sciences, Other	67	61	45	50	21	27	38	28	23	14	11
SOCIAL SCIENCES (INCL. PSYCH.)	5,929	5,765	5,893	5,790	5,781	5,961	6,093	6,152	6,216	6,546	6,624
Anthropology	335	353	381	352	325	325	324	341	320	342	384
Area Studies	23	19	28	17	16	17	22	24	33	36	34
Criminology	41	38	24	29	43	32	42	35	37	39	41
Demography/Population Studies	19	25	15	26	19	22	20	28	17	22	23
Economics	766	784	834	796	825	872	836	861	885	906	914
Econometrics	27	27	25	25	27	26	26	24	25	24	26
Geography	114	120	120	111	129	105	131	108	111	137	146
Human/Individual & Family Develop.	-	-	-	-	-	-	-	-	-	-	129
International Relations/Affairs	95	78	76	82	77	94	97	88	76	102	114
Political Science and Government	419	406	414	404	392	430	462	434	513	507	589
Public Policy Analysis	54	70	81	83	73	79	87	111	107	98	93
Sociology	515	461	491	423	449	436	428	465	495	513	524
Statistics	39	60	65	49	47	69	69	31	29	48	46
Urban Affairs/Studies	81	75	50	72	86	62	67	90	86	123	132
Social Sciences, General	17	17	36	30	28	26	23	36	33	32	21
Social Sciences, Other	127	114	127	118	171	158	178	226	186	196	148
PSYCHOLOGY	3,257	3,118	3,126	3,173	3,074	3,208	3,281	3,250	3,263	3,421	3,260
Clinical	1,195	1,181	1,173	1,214	1,095	1,259	1,337	1,305	1,309	1,374	1,289
Cognitive and Psycholinguistics	77	76	70	80	83	79	76	94	101	104	129
Comparative	13	11	14	9	7	8	8	7	2	5	8
Counseling	464	431	449	486	482	501	466	497	507	488	496
Developmental and Child	207	175	184	200	176	148	159	155	170	202	181
Experimental	169	165	147	146	135	146	143	142	154	143	140
Educational	210	127	106	89	103	105	98	110	91	91	69
Industrial and Organizational	106	102	110	107	118	104	126	142	138	158	137
Personality	25	21	16	25	18	28	20	13	17	22	19
Physiological/Psychobiology	73	79	73	69	85	62	46	45	55	85	93
Psychometrics	6	10	11	9	11	6	8	9	5	9	5
Quantitative	17	16	23	13	12	11	15	7	10	16	17
School	89	92	116	93	115	107	82	82	88	95	84
Social	157	167	141	133	140	128	145	147	139	126	153
Psychology, General	267	266	309	343	368	364	371	324	295	306	284
Psychology, Other	182	199	184	157	126	152	181	171	182	197	156
HUMANITIES	3,536	3,429	3,461	3,500	3,556	3,553	3,822	4,098	4,443	4,476	4,743
History, American	240	176	197	198	209	206	211	251	277	269	310
History, European	150	143	121	121	127	107	151	127	176	162	180
History/Philosophy of Sci. & Tech.	24	23	24	25	22	20	26	27	28	37	26
History, General	76	85	83	94	103	85	111	121	103	116	140
History, Other	127	116	138	148	142	120	113	137	141	142	144
Classics	57	44	51	55	56	51	58	55	58	61	84
Comparative Literature	133	133	101	121	139	103	97	150	163	153	163
Linguistics	160	176	189	199	166	188	167	227	266	214	221
Speech and Rhetorical Studies	41	38	30	37	37	35	38	86	98	111	142
Letters, General	14	13	19	25	16	13	19	17	18	18	22
Letters, Other	31	26	37	39	43	60	52	44	38	37	25
American Studies	76	87	68	75	70	76	72	92	81	101	88
Archeology	31	24	28	31	23	26	22	33	33	38	34
Art History/Criticism/Conservation	141	137	126	143	134	145	135	125	154	158	182
Music	445	447	476	499	505	522	572	589	641	614	685
Philosophy	215	238	248	233	222	270	243	285	279	274	302
Religion	183	181	182	182	217	215	219	187	231	255	252
Drama/Theater Arts	101	92	88	82	92	79	106	91	95	91	102
LANGUAGE AND LITERATURE	1,225	1,164	1,164	1,112	1,147	1,152	1,308	1,350	1,465	1,524	1,538
American	190	204	215	190	186	192	229	253	291	293	296
English	543	525	504	478	531	528	567	599	612	655	647
French	108	86	102	103	101	106	123	100	124	137	129
German	80	62	79	77	76	73	78	71	96	105	67
Italian	17	14	15	21	14	20	25	32	20	19	32
Spanish	144	145	122	133	137	134	173	173	179	179	212
Russian	33	28	28	19	13	13	19	25	28	28	38
Slavic	12	10	8	5	5	7	7	14	15	13	10
Chinese	13	14	13	13	12	9	16	19	20	21	25
Japanese	12	13	9	9	6	13	9	7	12	11	12
Hebrew	13	9	11	13	12	10	14	11	20	15	11
Arabic	8	5	9	8	14	6	7	4	12	10	4
Other Language and Literature	52	49	49	43	40	41	41	42	36	38	55
Humanities, General	22	27	23	23	25	19	28	29	21	30	31
Humanities, Other	44	59	68	58	61	61	74	75	77	71	72

NOTE: Dash (-) indicates that the field was not on the questionnaire's Specialties List that year. Field groupings may differ from those in reports published by federal sponsors of the Survey of Earned Doctorates. See inside the back cover for a description of fields as reported in this table. Refer also to the explanatory note about this table in front of Appendix B.

	Year of Doctorate										
	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
EDUCATION	6,808	6,733	6,646	6,450	6,359	6,278	6,511	6,442	6,640	6,650	6,683
Curriculum and Instruction	869	825	794	762	815	841	839	807	899	852	816
Educational Admin. and Supervision	1,569	1,625	1,637	1,686	1,749	1,632	1,663	1,428	1,287	1,339	1,205
Educational Leadership	-	-	1	-	-	-	1	483	681	764	780
Educ./Instruct. Media Design	83	101	79	68	67	76	55	73	62	95	111
Educ. Stat./Research Methods	105	74	58	73	51	59	59	80	61	64	68
Educ. Assess., Test., & Meas.	56	44	47	37	55	42	40	32	45	23	28
Educational Psychology	233	388	330	320	323	301	323	323	346	290	311
School Psychology	110	102	92	95	98	85	87	90	88	86	97
Social/Phil. Found. of Educ.	151	135	124	114	122	110	86	109	101	108	140
Special Education	312	270	273	248	257	259	225	226	260	277	241
Counseling Educ./Couns. & Guidance	391	397	315	315	324	264	301	270	259	287	282
Higher Educ./Evaluation & Research	657	589	612	570	399	373	424	344	380	357	428
Pre-elementary/Early Childhood	54	65	86	73	83	63	42	85	98	97	90
Elementary Education	97	122	94	105	93	99	110	73	73	65	71
Junior High Education	-	1	-	1	1	-	-	-	-	-	-
Secondary Education	62	68	86	65	67	53	56	40	28	33	24
Adult and Continuing Education	218	207	223	203	229	236	211	210	208	233	215
TEACHING FIELDS	1,170	1,118	1,142	1,064	988	968	923	970	1,006	941	960
Agricultural Education	47	40	39	39	32	35	38	49	43	54	52
Art Education	41	43	43	52	42	39	44	28	46	38	33
Business Education	52	52	50	36	44	40	34	32	16	27	25
English Education	72	68	79	72	57	51	52	58	61	53	56
Foreign Languages Education	25	30	37	37	53	33	31	46	50	48	54
Health Education	93	89	81	91	86	100	95	78	98	83	97
Home Economics Education	26	21	17	17	17	19	10	21	12	14	11
Technical/Industrial Arts Education	27	13	20	24	11	17	18	13	11	16	20
Mathematics Education	64	65	72	74	56	69	65	73	62	69	74
Music Education	92	81	94	109	76	97	78	96	96	80	89
Nursing Education	21	21	40	36	34	29	24	18	29	19	24
Physical Education and Coaching	219	220	210	192	184	176	191	185	167	161	139
Reading Education	142	113	134	94	74	95	82	102	121	95	97
Science Education	77	88	65	63	67	48	72	72	73	73	85
Social Science Education	22	24	22	17	23	13	11	19	19	9	10
Speech Education	10	7	5	5	5	1	5	1	-	-	-
Technical Education	-	-	-	-	13	28	15	25	35	21	30
Trade and Industrial Education	117	82	86	68	67	47	18	17	11	24	24
Teacher Ed./Spec. Acad. & Voc., Other	23	61	48	38	47	31	40	37	56	57	40
Education, General	311	294	354	366	358	414	535	421	426	408	484
Education, Other	360	308	299	285	280	403	531	378	332	331	332
PROFESSIONAL/OTHER FIELDS	1,941	1,893	1,982	2,131	2,142	2,193	2,284	2,402	2,498	2,494	2,580
BUSINESS AND MANAGEMENT	869	790	902	982	1,033	1,067	1,036	1,163	1,248	1,281	1,285
Accounting	164	150	157	161	175	186	172	172	180	183	178
Banking/Financial Support Services	123	104	126	156	148	151	134	172	172	170	134
Business Admin. and Management	175	174	222	225	265	245	277	204	241	324	322
Business/Managerial Economics	30	20	28	26	27	27	21	19	21	33	40
International Business	-	-	-	-	-	-	-	-	-	-	22
Mgmt. Info. Sys./Business Data Proc.	-	-	-	-	-	-	-	72	103	101	117
Marketing Management and Research	126	94	110	113	126	130	120	134	139	166	167
Business Statistics	7	9	3	8	6	15	10	5	-	-	-
Operations Research	46	45	46	64	50	52	46	58	67	63	54
Organizational Behavior	70	68	57	66	74	95	64	72	81	73	102
Business Mgmt./Admin. Serv., General	49	49	56	75	75	57	70	123	112	88	87
Business Mgmt./Admin. Serv., Other	79	77	97	88	87	109	122	132	132	80	62
COMMUNICATIONS	255	266	258	309	247	306	323	332	330	322	371
Communications Research	66	55	79	90	72	85	87	72	45	33	40
Journalism	17	22	18	7	21	15	21	7	-	-	-
Mass Communications	-	-	-	-	-	-	-	68	85	117	156
Radio and Television	20	19	13	16	12	29	17	6	-	-	-
Communication Theory	-	-	-	-	-	-	-	25	47	41	45
Communications, General	68	89	75	102	70	79	86	70	76	69	68
Communications, Other	84	81	73	94	72	98	112	84	77	62	62
OTHER PROFESSIONAL FIELDS	802	812	796	778	812	766	858	836	880	864	885
Architectural Environmental Design	25	36	27	33	31	43	41	67	60	54	67
Home Economics	107	90	88	67	58	55	74	29	58	57	31
Law	24	25	31	29	33	26	34	23	20	29	33
Library Science	68	71	57	48	57	60	42	52	51	70	41
Parks/Recreation/Leisure/Fitness	-	-	-	-	-	-	-	-	-	44	37
Public Administration	127	112	88	78	92	97	88	107	108	117	134
Social Work	231	220	235	214	241	206	246	240	248	237	272
Theology/Religious Education	212	240	240	254	251	232	271	273	292	240	258
Professional Fields, General	2	-	-	1	2	-	3	3	1	1	1
Professional Fields, Other	6	18	30	54	47	47	59	42	42	15	11
OTHER FIELDS	15	25	26	62	50	54	67	71	40	27	39

SOURCE: National Research Council, Survey of Earned Doctorates.

APPENDIX TABLE B-2 Number of Doctorate Recipients, by Gender, Race/Ethnicity, and Citizenship, 1975, 1979, and 1984-1994

Total All Doctorates

	Year of Doctorate												
	1975	1979	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
TOTAL MEN AND WOMEN	32,952	31,239	31,337	31,298	31,899	32,367	33,499	34,324	36,067	37,518	38,850	39,755	41,011
U.S. Citizens	27,083	25,464	24,027	23,370	23,083	22,983	23,290	23,400	24,905	25,560	25,974	26,408	27,105
Permanent Visas	1,713	1,320	1,224	1,324	1,433	1,578	1,622	1,626	1,698	1,856	1,978	2,254	3,741
Temporary Visas	3,536	3,587	4,832	5,228	5,276	5,610	6,194	6,646	8,093	9,309	9,951	9,921	9,393
Unknown Citizenship	620	868	1,254	1,376	2,107	2,196	2,393	2,652	1,371	793	947	1,172	772
Total Known Race/Ethnicity	30,271	28,719	29,280	29,058	28,924	29,216	30,345	30,940	33,867	35,755	37,129	38,227	39,775
U.S. Citizens	25,986	23,953	23,423	22,848	22,653	22,504	22,900	23,014	24,524	25,066	25,601	26,176	26,852
Permanent Visas	1,440	1,285	1,194	1,291	1,357	1,509	1,545	1,564	1,636	1,794	1,901	2,220	3,692
Temporary Visas	2,794	3,397	4,509	4,848	4,837	5,141	5,838	6,293	7,555	8,784	9,532	9,664	9,102
Unknown Citizenship	51	84	154	71	77	62	62	69	152	111	95	167	129
Native Americans	36	84	74	96	100	116	94	94	97	132	152	121	145
U.S. Citizens	36	81	74	96	99	115	94	94	96	130	149	120	142
Permanent Visas*	0	0	0	0	0	0	0	0	0	2	0	0	0
Temporary Visas*	0	3	0	0	1	1	0	0	1	0	2	1	3
Unknown Citizenship	0	0	0	0	0	0	0	0	0	0	1	0	0
Asians	2,161	2,602	3,394	3,642	3,727	4,126	4,778	5,181	6,291	7,522	8,276	8,657	9,359
U.S. Citizens	286	428	512	516	530	542	614	626	641	787	837	889	949
Permanent Visas	739	674	507	553	528	625	621	635	664	741	914	1,121	2,591
Temporary Visas	1,123	1,463	2,295	2,526	2,645	2,933	3,516	3,903	4,930	5,946	6,504	6,597	5,796
Unknown Citizenship	13	37	80	47	24	26	27	17	56	48	21	50	23
Blacks	1,211	1,443	1,494	1,440	1,270	1,218	1,263	1,246	1,349	1,458	1,422	1,610	1,669
U.S. Citizens	998	1,054	953	912	823	768	814	821	898	1,003	962	1,107	1,092
Permanent Visas	58	58	102	131	126	139	152	141	149	155	143	170	178
Temporary Visas	151	320	419	395	313	305	291	273	290	293	310	320	384
Unknown Citizenship	4	11	20	2	8	6	6	11	12	7	7	13	15
Hispanics	421	908	916	1,000	1,056	1,054	1,048	1,062	1,228	1,318	1,400	1,426	1,529
U.S. Citizens	313	470	534	561	572	617	595	581	721	731	778	830	882
Permanent Visas	34	77	71	73	107	91	98	112	116	136	130	139	144
Temporary Visas	71	348	300	360	372	338	349	363	386	445	481	453	501
Unknown Citizenship	3	13	11	6	5	8	6	6	5	6	11	4	2
Whites	26,442	23,682	23,402	22,880	22,771	22,702	23,162	23,357	24,902	25,325	25,879	26,413	27,073
U.S. Citizens	24,353	21,920	21,350	20,763	20,629	20,462	20,783	20,892	22,168	22,415	22,875	23,230	23,787
Permanent Visas	609	476	514	534	596	654	674	676	707	760	714	790	779
Temporary Visas	1,449	1,263	1,495	1,567	1,506	1,564	1,682	1,754	1,948	2,100	2,235	2,293	2,418
Unknown Citizenship	31	23	43	16	40	22	23	35	79	50	55	100	89
Unknown Race/Ethnicity	2,681	2,520	2,057	2,240	2,975	3,151	3,154	3,384	2,200	1,763	1,721	1,528	1,236
U.S. Citizens	1,097	1,511	604	522	430	479	390	386	381	494	373	232	253
Permanent Visas	273	35	30	33	76	69	77	62	62	62	77	34	49
Temporary Visas	742	190	323	380	439	469	356	353	538	525	419	257	291
Unknown Citizenship	569	784	1,100	1,305	2,030	2,134	2,331	2,583	1,219	682	852	1,005	643

NOTE: The reader is referred to the explanatory note about this table in front of Appendix B.

*In most cases, non-U.S. Native Americans are citizens of Canada or of Latin America.

Doctorates: MEN

	Year of Doctorate												
	1975	1979	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
TOTAL MEN	25,751	22,302	20,638	20,554	20,594	20,939	21,681	21,812	22,962	23,648	24,432	24,649	25,205
U.S. Citizens	20,664	17,580	14,730	14,223	13,637	13,575	13,725	13,396	14,166	14,377	14,500	14,493	14,710
Permanent Visas	1,416	1,014	892	999	1,068	1,117	1,164	1,139	1,190	1,224	1,291	1,466	2,634
Temporary Visas	3,182	3,092	4,134	4,395	4,414	4,722	5,133	5,442	6,632	7,516	7,961	7,854	7,317
Unknown Citizenship	489	616	882	937	1,475	1,525	1,659	1,835	974	531	680	836	544
Total Known Race/Ethnicity	23,493	20,456	19,131	18,944	18,432	18,673	19,405	19,395	21,336	22,345	23,143	23,510	24,295
U.S. Citizens	19,785	16,490	14,303	13,858	13,338	13,248	13,445	13,112	13,899	14,018	14,234	14,321	14,543
Permanent Visas	1,178	987	867	971	1,004	1,064	1,097	1,094	1,150	1,176	1,233	1,441	2,599
Temporary Visas	2,490	2,922	3,844	4,057	4,037	4,313	4,820	5,139	6,172	7,077	7,612	7,645	7,089
Unknown Citizenship	40	57	117	58	53	48	43	50	115	74	64	103	64
Native Americans	27	59	54	40	59	63	52	49	52	74	82	61	74
U.S. Citizens	27	56	54	40	58	62	52	49	52	74	82	60	71
Permanent Visas*	0	0	0	0	0	0	0	0	0	0	0	0	0
Temporary Visas*	0	3	0	0	1	1	0	0	0	0	0	1	3
Unknown Citizenship	0	0	0	0	0	0	0	0	0	0	0	0	0
Asians	1,858	2,158	2,780	2,945	3,040	3,349	3,843	4,154	5,030	5,875	6,422	6,605	7,064
U.S. Citizens	222	311	338	329	347	369	414	441	427	481	528	551	591
Permanent Visas	642	564	389	437	417	455	456	459	482	488	603	729	1,875
Temporary Visas	984	1,253	1,982	2,137	2,258	2,505	2,955	3,241	4,076	4,870	5,273	5,287	4,579
Unknown Citizenship	10	30	71	42	18	20	18	13	45	36	18	38	19
Blacks	851	898	903	851	707	701	697	684	731	784	765	839	882
U.S. Citizens	649	551	427	379	323	317	315	327	351	417	392	439	407
Permanent Visas	53	52	81	117	106	118	126	125	128	131	122	139	142
Temporary Visas	145	288	382	354	275	261	251	222	242	232	245	250	325
Unknown Citizenship	4	7	13	1	3	5	5	10	10	4	6	11	8
Hispanics	350	681	620	646	665	677	678	662	760	805	858	873	863
U.S. Citizens	250	311	313	300	302	332	321	307	380	370	410	422	437
Permanent Visas	30	52	47	50	71	50	64	69	69	88	71	94	78
Temporary Visas	67	310	252	294	289	288	288	283	309	343	370	356	346
Unknown Citizenship	3	8	8	2	3	7	5	3	2	4	7	1	2
Whites	20,407	16,660	14,774	14,462	13,961	13,883	14,135	13,846	14,763	14,807	15,016	15,132	15,412
U.S. Citizens	18,637	15,261	13,171	12,810	12,308	12,168	12,343	11,988	12,689	12,676	12,822	12,849	13,037
Permanent Visas	453	319	350	367	410	441	451	441	471	469	437	479	504
Temporary Visas	1,294	1,068	1,228	1,272	1,214	1,258	1,326	1,393	1,545	1,632	1,724	1,751	1,836
Unknown Citizenship	23	12	25	13	29	16	15	24	58	30	33	53	35
Unknown Race/Ethnicity	2,258	1,846	1,507	1,610	2,162	2,266	2,276	2,417	1,626	1,303	1,289	1,139	910
U.S. Citizens	879	1,090	427	365	299	327	280	284	267	359	266	172	167
Permanent Visas	238	27	25	28	64	53	67	45	40	48	58	25	35
Temporary Visas	692	170	290	338	377	409	313	303	460	439	349	209	228
Unknown Citizenship	449	559	765	879	1,422	1,477	1,616	1,785	859	457	616	733	480

APPENDIX TABLE B-2 (Continued)

Doctorates: WOMEN

	Year of Doctorate												
	1975	1979	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
TOTAL WOMEN	7,201	8,937	10,699	10,744	11,305	11,428	11,818	12,512	13,105	13,870	14,418	15,106	15,806
U.S. Citizens	6,419	7,884	9,297	9,147	9,446	9,408	9,565	10,004	10,739	11,183	11,474	11,915	12,395
Permanent Visas	297	306	332	325	365	461	458	487	508	632	687	788	1,107
Temporary Visas	354	495	698	833	862	888	1,061	1,204	1,461	1,793	1,990	2,067	2,076
Unknown Citizenship	131	252	372	439	632	671	734	817	397	262	267	336	228
Total Known Race/Ethnicity	6,778	8,263	10,149	10,114	10,492	10,543	10,940	11,545	12,531	13,410	13,986	14,717	15,480
U.S. Citizens	6,201	7,463	9,120	8,990	9,315	9,256	9,455	9,902	10,625	11,048	11,367	11,855	12,309
Permanent Visas	262	298	327	320	353	445	448	470	486	618	668	779	1,093
Temporary Visas	304	475	665	791	800	828	1,018	1,154	1,383	1,707	1,920	2,019	2,013
Unknown Citizenship	11	27	37	13	24	14	19	19	37	37	31	64	65
Native Americans	9	25	20	56	41	53	42	45	45	58	70	60	71
U.S. Citizens	9	25	20	56	41	53	42	45	44	56	67	60	71
Permanent Visas*	0	0	0	0	0	0	0	0	0	2	0	0	0
Temporary Visas*	0	0	0	0	0	0	0	0	1	0	2	0	0
Unknown Citizenship	0	0	0	0	0	0	0	0	0	0	1	0	0
Asians	303	444	614	697	687	777	935	1,027	1,261	1,647	1,854	2,052	2,295
U.S. Citizens	64	117	174	187	183	173	200	185	214	306	309	338	358
Permanent Visas	97	110	118	116	111	170	165	176	182	253	311	392	716
Temporary Visas	139	210	313	389	387	428	561	662	854	1,076	1,231	1,310	1,217
Unknown Citizenship	3	7	9	5	6	6	9	4	11	12	3	12	4
Blacks	360	545	591	589	563	517	566	562	618	674	657	771	787
U.S. Citizens	349	503	526	533	500	451	499	494	547	586	570	668	685
Permanent Visas	5	6	21	14	20	21	26	16	21	24	21	31	36
Temporary Visas	6	32	37	41	38	44	40	51	48	61	65	70	59
Unknown Citizenship	0	4	7	1	5	1	1	1	2	3	1	2	7
Hispanics	71	227	296	354	391	377	370	400	468	513	542	553	666
U.S. Citizens	63	159	221	261	270	285	274	274	341	361	368	408	445
Permanent Visas	4	25	24	23	36	41	34	43	47	48	59	45	66
Temporary Visas	4	38	48	66	83	50	61	80	77	102	111	97	155
Unknown Citizenship	0	5	3	4	2	1	1	3	3	2	4	3	0
Whites	6,035	7,022	8,628	8,418	8,810	8,819	9,027	9,511	10,139	10,518	10,863	11,281	11,661
U.S. Citizens	5,716	6,659	8,179	7,953	8,321	8,294	8,440	8,904	9,479	9,739	10,053	10,381	10,750
Permanent Visas	156	157	164	167	186	213	223	235	236	291	277	311	275
Temporary Visas	155	195	267	295	292	306	356	361	403	468	511	542	582
Unknown Citizenship	8	11	18	3	11	6	8	11	21	20	22	47	54
Unknown Race/Ethnicity	423	674	550	630	813	885	878	967	574	460	432	389	326
U.S. Citizens	218	421	177	157	131	152	110	102	114	135	107	60	86
Permanent Visas	35	8	5	5	12	16	10	17	22	14	19	9	14
Temporary Visas	50	20	33	42	62	60	43	50	78	86	70	48	63
Unknown Citizenship	120	225	335	426	608	657	715	798	360	225	236	272	163

NOTE: The reader is referred to the explanatory note about this table in front of Appendix B.

*In most cases, non-U.S. Native Americans are citizens of Canada or of Latin American countries.

SOURCE: National Research Council, Survey of Earned Doctorates.

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APPENDIX C: Technical Notes

*** IMPORTANT NOTICE ***

The estimates reported for the Survey of Earned Doctorates (SED) are simple tabulations of all available information with no adjustment for nonresponse. Therefore, differences in response rates from year to year can produce numerical fluctuations that are unrelated to real trends.

Although response to the SED has been 95 to 98 percent in most years, it declined to 92 percent during the 1980s. In an effort to improve the response rate, the survey methodology was modified in the years after 1989. Response has risen as hoped, stabilizing around 95 percent during the last four years (1991 to 1994). (Note: These percentages represent *self-report rates*, i.e., the proportion of questionnaires completed by doctorate recipients. While survey forms containing partial information filled in by either the doctoral institution or staff of the National Research Council are not included in these rates, tables in this report incorporate the available data from these forms.) The self-report rate for 1994 may increase slightly in the next year if additional questionnaires are received from doctorate recipients. See the next page for a table giving survey response rates from 1964 to 1994.

Item response rates have shown a parallel improvement since 1990—a natural consequence of the increase in the overall self-report rate, as well as a result of format revisions to the questionnaire and follow-ups for missing information. In 1990, new follow-up procedures were implemented to increase coverage of several variables: birth year, gender, race/ethnicity, citizenship status, country of citizenship, baccalaureate year and institution, and postgraduation plans. Response rates for these variables have since improved—especially for citizenship and race/ethnicity, resulting in an increase in the reported numbers of minority Ph.D.s. The data for a given year are updated the following year with any responses received *after* survey closure. Postsurvey adjustment was most significant for 1990 and 1991 Ph.D.s, with the largest impact on the number of blacks. For both of these years, the total number of black Ph.D.s increased by about 7.5 percent in the year after survey closure. The survey cycle was then extended to allow receipt of more follow-up information before closure, resulting in much smaller postsurvey adjustments for both 1992 and 1993 data (a 1.4 percent increase in black Ph.D.s for 1992 and only a 0.2 percent increase for 1993). The same is expected for 1994 data.

Adjustments to data are presented in reports subsequent to the initial report for a survey. Updates for 1992 appeared in *Summary Report 1993*, and those for 1993 are included in this year's report (see Appendix Table B-2 for adjustments to racial/ethnic data). The data for 1994 will likewise be subject to further revision, but as for the last two years, adjustments are expected to be minimal. Updates to 1994 data will be presented in next year's report.

In using SED data, the reader should keep in mind that numerical trends are affected by fluctuations in response rates. Increasing or decreasing numbers in a citizenship or racial/ethnic group reflect to some degree any change in both overall survey response and item response.

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SURVEY RESPONSE RATES *

Year	Self-Report Rate	Year	Self-Report Rate
1964	96.9	1980	96.2
1965	97.4	1981	95.7
1966	96.3	1982	95.3
1967	97.3	1983	95.5
1968	97.6	1984	95.1
1969	96.6	1985	94.8
1970	98.1	1986	93.5
1971	97.5	1987	93.1
1972	97.3	1988	92.9
1973	97.5	1989	92.3
1974	94.2	1990	93.6
1975	97.3	1991	94.6
1976	97.2	1992	95.1
1977	96.6	1993	94.7
1978	96.3	1994	94.4
1979	96.4		

* The rates for 1964-1993 reflect late responses. The rate for 1994 may increase slightly in the next year if additional questionnaires are received after survey closure. Self-report rates for 1980-1994 are determined from the "source of response" indicator in the doctorate records. Because this indicator was not coded prior to 1980, survey forms for 1964-1979 are assumed to be self-reported if "month signed" or "marital status" is present. "Marital status" is not available from sources other than the doctorate recipient.

As shown on the previous page, 94.4 percent of all doctorate recipients in 1994 completed survey forms; this percentage is referred to as the "self-report" rate. For the remaining 5.6 percent of recipients, "skeletal" forms were created with information from doctorate-granting institutions or commencement programs. Whether or not individuals completed the survey questionnaire, the following four data items are available for all recipients: gender, Ph.D. institution, Ph.D. field, and Ph.D. year.

This report presents data obtained from *all* survey forms, both self-reported and skeletal. The reader should note that nonresponse in a tabulation varies according to the *combination* of selected variables. Higher nonresponse rates occur when any of the four variables mentioned above are cross-tabulated with another variable (e.g., educational debt) because the universe consists of the entire doctoral cohort. In other words, the 5.6 percent of Ph.D.s who did not respond to the survey are included, even though their records contain minimal information. Nonresponse is generally lower when citizenship or race/ethnicity is cross-tabulated with a variable such as debt because the population is restricted to a group (e.g., U.S. citizens) that is largely drawn from self-reported forms and thus more likely to have responses to the debt question. To be more precise, information on debt was not available for only 4.8 percent of U.S. citizens in 1994; nonresponse was low because data on both citizenship and debt were obtained mostly from self-reported forms. Nonresponse was higher for the entire 1994 cohort (7.3 percent) because it included the 5.6 percent of forms that were only partially filled in by institutions or staff of the National Research Council. The same was true for men (7.5 percent) and women (7.1 percent) because gender was known even for Ph.D.s who did not complete a survey form. Cross-tabulating debt with field of doctorate would yield similarly high non-response rates because Ph.D. field is available for all recipients.

The percentages shown in the tables and figures in the body of this report are based only on the number of doctorate recipients who *responded* to the applicable survey questions.[1] Appendix C presents nonresponse rates for the variables included in these tables and figures; it also provides descriptive explanations of the data as needed. For additional technical information, please contact:

Doctorate Records Project
National Research Council
OSEP—Room TJ 2006
2101 Constitution Avenue, N.W.
Washington, D.C. 20418

Phone: (202) 334-3161

[1] Note that the percentages in Appendix Tables A-3 and A-4 are based on the total doctoral cohort because categories for "unknown" responses are included. See the notes in front of Appendix A for further explanation of these data.

NONRESPONSE RATES FOR ITEMS IN TABLES AND FIGURES

Data Item	Tables/Figures	1964	1969
Baccalaureate Institution (for U.S. minorities)	Table 6	x	x
Citizenship	Tables 3-7,9,11,12,14,16-20; Figures 2-4,7,8,14,15	1.9	2.5
Country of Citizenship (for non-U.S. citizens)	Tables 4,5; Figure 3	x	x
Debt Status	Tables 13,14; Figure 12	x	x
Doctorate Field	Tables 2,3,8-13,15,18,19; Figures 5-8,10-12	0.0	0.0
Doctorate Institution	Table 7	x	x
Doctorate Year	All tables	0.0	0.0
Gender	Tables 2,11,12,14,16,20; Figures 1,6	0.0	0.0
Postdoctoral Location (for definite commitments)			
non-U.S. citizens (any type of plans)	Tables 17,18; Figure 14	x	x
U.S. citizens & permanent visas (employment plans)	Tables 19-20; Figure 15	x	x
temporary visas (employment plans)	Table 20	x	x
Postdoctoral Plans (e.g., definite employment vs. study)	Tables 15,16,18-20; Figures 13,15	x	x
Postdoctoral Sector (for definite employment in U.S.)			
U.S. citizens & permanent visas	Tables 19-20; Figure 15	x	x
temporary visas	Table 20	x	x
Postdoctoral Status (e.g., definite vs. seeking)	Tables 15-20; Figures 13-15	x	x
Primary Source of Graduate School Support	Table 12; Figure 11	x	x
Race/Ethnicity			
U.S. citizens	Tables 6,7,9,11,12,14; Figures 4,8	x	x
U.S. citizens & permanent visas	Tables 16,20	x	x
Registered Time-to-Doctorate (computed)	Tables 10,11; Figures 9,10	x	8.3
Total Time-to-Doctorate (computed)	Tables 10,11; Figures 9,10	x	1.7

NOTE: In 1994, 94.4 percent of new doctorate recipients completed the survey form. The item nonresponse rates in this table include the 5.6 percent of recipients who were not self-reporting. Because missing information is sometimes obtained from the doctorate-granting institutions or commencement programs, nonresponse rates for the following variables may be lower than the survey's 5.6 percent rate of nonresponse: citizenship, gender, race/ethnicity, baccalaureate institution, and total time-to-doctorate (derived from baccalaureate year). Field, institution, and year of doctorate are available for all recipients, as is gender.

x = Year not shown in tables and figures.

NONRESPONSE RATES FOR ITEMS IN TABLES AND FIGURES

1974	1979	1984	1989	1994	1990-1994	Data Item
x	x	x	x	x	1.1	Baccalaureate Institution (U.S. minorities)
4.6	2.8	4.0	7.7	1.9	2.6	Citizenship
x	x	x	9.9	0.6	x	Country of Citizenship (for non-U.S. citizens)
x	x	x	x	7.3	x	Debt Status
0.0	0.0	0.0	0.0	0.0	x	Doctorate Field
x	x	x	x	0.0	x	Doctorate Institution
0.0	0.0	0.0	0.0	0.0	0.0	Doctorate Year
0.0	0.0	0.0	0.0	0.0	x	Gender
						Postdoctoral Location (for definite commitments)
2.9	5.6	7.9	9.9	0.8	x	non-U.S. citizens (any type of plans)
2.2	4.0	7.8	7.1	0.1	x	U.S. citizens & permanent visas (employment plans)
1.9	4.7	7.7	10.1	0.4	x	temporary visas (employment plans)
0.7	0.9	0.3	0.5	0.7	x	Postdoctoral Plans (e.g., definite employment vs. study)
						Postdoctoral Sector (for definite employment in U.S.)
0.4	0.7	1.2	1.1	1.6	x	U.S. citizens & permanent visas
0.0	0.2	0.0	0.0	1.5	x	temporary visas
8.0	7.0	9.3	10.4	8.4	x	Postdoctoral Status (e.g., definite vs. seeking)
x	x	x	x	27.7	x	Primary Source of Graduate School Support
						Race/Ethnicity
(1975)* 4.1	5.9	2.5	1.6	0.9	1.3	U.S. citizens
(1975)* 4.8	5.8	2.5	1.8	1.0	x	U.S. citizens & permanent visas
11.9	10.8	12.2	15.3	17.7	x	Registered Time-to-Doctorate (computed)
3.0	2.6	3.4	6.8	3.9	x	Total Time-to-Doctorate (computed)

x = Year not shown in tables and figures.

* Race/ethnicity was not available until 1975. The nonresponse rates shown in the 1974 column actually represent 1975.

Baccalaureate Institutions of U.S. Minorities

Table 6 is restricted to U.S. minority Ph.D.s (native and naturalized citizens) from 1990 to 1994 who earned baccalaureates at institutions *located in the United States*. Because this population constitutes only 89.4 percent of all U.S. minority Ph.D.s in this period, the totals shown in Table 6 for each group are not all-inclusive. Another 9.5 percent—mostly naturalized Asians and Hispanics—received baccalaureates from foreign institutions, and the remaining 1.1 percent either did not earn a baccalaureate degree or did not report this information. The totals for all U.S. minority Ph.D.s regardless of baccalaureate status are: 4,103 Asians (58.2 percent naturalized); 5,062 blacks (7.3 percent naturalized); 3,942 Hispanics (21.2 percent naturalized); and 637 Native Americans (0.9 percent naturalized).

Country of Citizenship (for non-U.S. Ph.D.s)

Country of citizenship (if missing) was first followed up during the 1990 survey. Consequently, nonresponse has been much lower in recent years than prior to 1990. Nonresponse was only 0.6 percent in 1994, compared to 9.9 percent in 1989. Tables 4 and 5 present data on country of citizenship.

Postgraduation Plans

Postgraduation status: The question on postgraduation status asks recipients to indicate whether they have made a "definite" commitment, are in the process of "negotiating" with one or more organizations, or are seeking a position but have no specific prospects. Because Ph.D.s sometimes complete the survey form months ahead of graduation, it is not possible to determine the final plans of all recipients. It is quite likely that some individuals who check "negotiating" or "seeking" have obtained positions by the time of graduation. Data on postgraduation plans in this report are restricted to the group of Ph.D.s who reported "definite" plans.[2]

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[2] Comparisons with the most recent longitudinal Survey of Doctorate Recipients (SDR) show the data on "definite" postgraduation plans to be a reasonable indicator of the actual employment status of new Ph.D.s in the first year or so following receipt of the doctorate. (The SDR, also conducted by the National Research Council, is a follow-up employment survey of a sample of doctorate recipients in science, engineering, and humanities fields.) According to the 1993 SDR, 97 percent of new 1992 Ph.D.s with "definite" plans at the time of graduation were employed in the U.S. labor force in April 1993 (postdoctoral appointments included). Moreover, most were working in the sector reported on their SED survey forms. It is important to note that the April 1993 reference point for the SDR fell 9-22 months after graduation for the 1992 Ph.D.s. This gap in time provides a plausible explanation for movement between sectors.

Definite commitments: Tables 15-20 and Figures 13-15 include only those Ph.D.s who reported definite postgraduation commitments and, therefore, do not reflect the entire Ph.D. population. The proportions of each doctoral cohort reporting definite commitments are shown below:

Year	% Definite	Year	% Definite
1974	67.4	1989	66.5
1979	68.5	1994	60.7
1984	66.3		

NOTE: These percentages are not adjusted for nonresponse to the question on postgraduation status; nonresponse ranged from 7 to 10 percent during these years. See chart of item nonresponse rates for detail.

Postdoctoral location: Revisions to the survey form have resulted in significant increases in response to postdoctoral location during the last few years. Doctorate recipients can now check a box for "U.S." or "non-U.S." instead of providing the name and exact location of the organization with which they will be affiliated after the doctorate. This explains the much lower nonresponse in 1994 than in earlier years shown in Tables 17-20 and Figures 14-15. See chart of item nonresponse rates for detail.

Postdoctoral employment commitments in the U.S.: To be included in Tables 19-20 and Figure 15, Ph.D.s must have reported definite commitments for employment. Foreign locations and employers are excluded. For temporary residents, a U.S. location must have been reported. For U.S. citizens and permanent residents, unknown locations are assumed to be in the United States because of the high "stay" rates for both groups. Based on actual responses to the 1994 survey, 97 percent of U.S. citizens with employment or study commitments intended to remain in the United States, as did 90 percent or more of permanent residents.

Primary Source of Graduate School Support

Although 93.8 percent of doctorate recipients in 1994 answered the question on sources of support, only 72.3 percent designated a *primary* source—giving this item the highest nonresponse of any item in the survey. Even so, the nonresponse rate of 27.7 percent in 1994 was 6 points less than the 33.9 percent of a year ago. This decrease in nonresponse was likely a result of moving the sentence that requests designation of primary source to the beginning of the question's instructions. Nonresponse should drop further in the 1995 survey because all Ph.D.s will have completed forms containing the clarified instructions; in 1994, 28 percent of the doctorate recipients filled out earlier versions of the questionnaire.

Race/Ethnicity

Adjustments to numbers: The reader should keep in mind that fluctuations in numbers for a racial/ethnic group reflect to some degree any upward or downward change in both overall survey response and response to the racial/ethnic item. Since 1990, response to race/ethnicity has shown great improvement—a result of new procedures for following up missing information. Race/ethnicity was not followed up prior to 1990.

All follow-up responses received before survey closure are included in data presented in the *Summary Report* for that survey. Responses arriving after closure are included in the next year's report. The extension of survey closure dates in the last two years has allowed most follow-up responses to be received in time to be included in the *Summary Reports* for those surveys. Postsurvey adjustments were greatest for 1990 and 1991 data, much less for 1992, and minimal for 1993. In 1994, response to the racial/ethnic item reached 97 percent by survey closure—the highest rate ever. Any postsurvey adjustments for 1994 data will be included in next year's report, but they are expected to be very slight because of the extended closure. Updated numbers for all recent years appear in Appendix Table B-2 in this report. See the notice at the beginning of Appendix C for more detail.

History of the racial/ethnic question: Although this item was first introduced to the Survey of Earned Doctorates in 1973, over 25 percent of recipients in 1973 and about 13 percent in 1974 either completed earlier questionnaires or provided unusable responses. Since 1975, the racial/ethnic data have been more reliable, with response rates ranging from 90.1 to 97.0 percent (the latter in 1994). The information on race/ethnicity presented in this report is limited to the period 1975 to 1994.

The racial/ethnic question has undergone several revisions over the years. In 1977, it was modified to correspond to a standard question format recommended by the Federal Interagency Committee on Education and adopted by the Office of Management and Budget (OMB) for use in federally sponsored surveys; an explanation of the effect of these changes is detailed on page 13 of *Summary Report 1977*. (Note: Changes in the OMB guidelines prompted the reclassification of persons having origins in the Indian subcontinent from the white category to the Asian category.) In 1980, the question was further revised in two ways: (1) the Hispanic category was subdivided into Puerto Rican, Mexican American, and other Hispanic, and (2) respondents were asked to check only one racial category. (Before 1980, doctorate recipients could check more than one category to indicate their race.) The item was modified again in 1982 to separate the questions on race and ethnicity. Since then, respondents have been asked to first check one of the four racial group categories (American Indian, Asian, black, or white) and then indicate whether or not they are Hispanic. *In this report, Ph.D.s who reported Hispanic heritage are classified as Hispanic regardless of their racial designations*; the remaining Ph.D.s are then counted in the respective racial groups. (Note: Doctorate recipients who checked the category "American Indian or Alaskan Native" are identified as "Native American" in this report.)

Time-to-Doctorate

Total time-to-degree (TTD): TTD measures the total elapsed time between the baccalaureate and the doctorate (including time not enrolled in school). TTD can be computed only for individuals whose baccalaureate year is known. Baccalaureate year is often obtained from commencement programs or doctorate institutions when not reported by the recipient. *Months are now included in the computation (see note below).*

Registered time-to-degree (RTD): RTD gauges the time in attendance at colleges and universities between receipt of the baccalaureate and the doctorate. Enrollment may include years of attendance not related to a recipient's doctoral program. RTD can only be computed for individuals who have provided all years of college attendance after the baccalaureate. *Months are now included in the computation (see note below).*

Note about medians: *The method of computing medians has been revised. Beginning with Summary Report 1994,* ***months*** *(of birth, baccalaureate, and doctorate) are included in the calculations whenever available; if months are missing, only years are used in the calculations. (However, medians are not computed for years prior to 1969 because doctorate month is unavailable for all Ph.D.s.) Medians presented in previous Summary Reports were based only on years. Some medians would be the same regardless of the method of computation, but the new method generally computes slightly different results than are obtained by the old method. While differences are small (usually one- or two-tenths of a year), the reader should consider these differences when comparing medians presented in this report with those in earlier reports.*

Form Approved. OMB No. 3145-0019 Approval Expires 6/94

SURVEY OF EARNED DOCTORATES 1993-94

Please return this form to the GRADUATE DEAN for forwarding to
The Office of Scientific and Engineering Personnel, National Research Council • 2101 Constitution Avenue, N.W., Washington, D.C. 20418

Please print or type.

1. Name in full: _____ (Last Name) _____ (First Name) _____ (Middle Name)
   Cross Reference: Maiden name or former name legally changed _____

2. Permanent address through which you could always be reached. (Care of, if applicable) _____
   _____ (Number) _____ (Street) _____ (City)
   _____ (State) _____ (Zip Code) _____ (Or Country if not U.S.)

3. U.S. Social Security Number: ___ ___ ___ - ___ ___ - ___ ___ ___ ___

4. Place of birth: _____ (State) _____ (or Country if not U.S.)
   Date of birth: _____ (Month) _____ (Day) _____ (Year)

5. Sex: 1 ☐ Male
   2 ☐ Female

6. Marital status:
   0 ☐ Single, never married
   1 ☐ Married
   2 ☐ Separated, divorced, widowed

7. Citizenship:
   0 ☐ United States, native
   1 ☐ United States, naturalized
   Non-United States:
   2 ☐ Permanent Resident of United States (Immigrant visa)
   → _____ (Country of present citizenship)
   3 ☐ Temporary Resident of United States (Non-immigrant visa)
   → _____ (Country of present citizenship)

8. Are you a person with a disability? ☐ Yes ☐ No
   If yes, is it:
   1 ☐ Visual
   2 ☐ Orthopedic (mobility)
   3 ☐ Auditory (hearing)
   4 ☐ Vocal
   5 ☐ Other (specify) _____

9. What is your racial background? (Check only one.)
   0 ☐ American Indian or Alaskan Native
   1 ☐ Asian or Pacific Islander
   2 ☐ Black
   3 ☐ White

10. Are you Hispanic? ☐ No ☐ Yes →
    0 ☐ Mexican American
    1 ☐ Puerto Rican
    2 ☐ Other Hispanic

11. How many dependents do you have? _____ Do not include yourself.
    (Dependent = someone receiving at least one half of his or her support from you.)

EDUCATION

12. Location of high school/secondary school last attended: _____ (State) _____ (or Country if not U.S.)
    Date of graduation from high school: _____ (Month/Year)

13. List below, chronologically, all colleges (including 2-year) and graduate institutions you have attended and each degree earned (if any). Be sure to give the years attended for ALL institutions attended. Include your doctoral institution(s) (and degree) at the end.

Institution/Branch	State/Country	Years Attended From	Years Attended To	Field of Study (Use Specialties List) Name	Field of Study (Use Specialties List) Number	Degree (if any) Title	Degree (if any) Granted Mo	Degree (if any) Granted Yr
EXAMPLE Genesee Community College	*NY*	*79*	*81*	*Math*	*498*			
SUNY/Buffalo	*NY*	*81*	*83*	*Computer Science*	*400*	*B.S.*	*6*	*83*

If a baccalaureate degree (or equivalent) was never received, please check box. ☐

14. How many years were you a **full-time** student between receiving your first baccalaureate degree (or equivalent) and receiving your doctorate (include the period spent on your thesis and/or dissertation): _____ (whole numbers)

15. Identify the field of your dissertation research and enter below the title of your dissertation. If a project report or a musical or literary composition is a degree requirement in lieu of a dissertation, please check box ☐ Name of field _____ Number of field _____ (Use Specialties List)
    Title _____

16. Name the department (or interdisciplinary committee, center, institute, etc.) and school or college of the university which supervised your doctoral program.
    _____ (Department/Institute/Committee/Program) _____ (School)

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(continued on next page)

17. Indicate your **primary** and **secondary** sources of support during graduate school by entering "1" or "2" in the appropriate box. Check ( ) all other sources from which support was received, if any. (Enter only one source as "1" and one source as "2.")

Own/Family Resources
01 ☐ Own Earnings
02 ☐ Spouse's Earnings
03 ☐ Family Contributions

University-Related
10 ☐ Teaching Assistant
11 ☐ Research Assistant
12 ☐ University Fellow
14 ☐ College Work-Study
19 ☐ Other
Specify

Federal Research Assistant
22 ☐ NIH
32 ☐ NSF
52 ☐ USDA
62 ☐ Other Federal
Specify

Other Federal Support
21 ☐ NIH Traineeship/Fellowship
29 ☐ Other HHS
33 ☐ NSF Fellowship
40 ☐ Patricia Roberts-Harris Fellowship – formerly G*POP (Department of Education)
44 ☐ Title VI Foreign Language

Other Federal Support (continued)
49 ☐ Other Dept. Education
60 ☐ Veterans Administration
53 ☐ USDA Fellowship
69 ☐ Other Federal
Specify

U.S. Nationally Competitive Fellowships (Non-Federal)
70 ☐ Ford Foundation
71 ☐ Rockefeller Foundation
73 ☐ Mellon Foundation
78 ☐ Other Fellowship
Specify

Student Loans
80 ☐ Guaranteed Student Loan (Stafford Loan)
81 ☐ Perkins Loan – formerly National Direct Student Loan
89 ☐ Other Loan
Specify

Other Sources
90 ☐ Business/Employer
91 ☐ Foreign (Non-U.S.) Government
92 ☐ State Government
99 ☐ Other
Specify

18. When you receive your doctorate degree, how much money will you owe that is directly related to your undergraduate and/or graduate education (tuition and fees, living expenses and supplies, transportation to and from school)?

0 ☐ None
1 ☐ $5,000 or less
2 ☐ $5,001-$10,000
3 ☐ $10,001-$15,000
4 ☐ $15,001-$20,000
5 ☐ $20,001-$25,000
6 ☐ $25,001-$30,000
7 ☐ $30,001 or more

19A. Please check the category that most fully describes your status for employment or study during the year immediately preceding the award of the doctorate.

0 ☐ Full-time employed → Go to item 19B →
1 ☐ Held fellowship
2 ☐ Held assistantship
3 ☐ Part-time employed
4 ☐ Not employed
5 ☐ Other (specify) _____

B. If full-time employed, what type of position did you hold?

6 ☐ College or university, faculty
7 ☐ College or university, non-faculty
8 ☐ Elementary or secondary school, teaching
9 ☐ Elementary or secondary school, non-teaching
(11) ☐ Industry or business
(12) ☐ Other (specify) _____

POSTGRADUATION PLANS

20. How definite are your immediate postgraduate plans?

0 ☐ Am returning to, or continuing in, predoctoral employment
1 ☐ Have signed contract or made definite commitment
2 ☐ Am negotiating with one or more specific organizations
3 ☐ Am seeking position but have no specific prospects
4 ☐ Other (specify) _____

21. What best describes your immediate postgraduate plans?

Study
0 ☐ Postdoctoral fellowship
1 ☐ Postdoctoral research associateship
2 ☐ Traineeship
3 ☐ Other study (specify) _____
} For **study** plans go to Item 22

4 ☐ **Employment** (other than 0, 1, 2, 3)
5 ☐ **Military service**
6 ☐ **Other** (specify) _____
} For **employment** plans go to Item 23

22. If you plan to have a postdoctoral fellowship, associateship, traineeship, or otherwise undertake further **study**,

A. What will be the field of your postdoctoral **study?** Please enter number from **Specialties List.** _____

B. What will be the main source of financial support for your study research?

0 ☐ U.S. Government
1 ☐ College or university
2 ☐ Private foundation
3 ☐ Nonprofit, other than private foundation
4 ☐ Other (specify) _____
6 ☐ Unknown

Go to Item 24

23. If you plan to be **employed, enter military service** or **other**:

A. For what type of **employer** will you be working?

Education
a ☐ U.S. 4-yr college or university other than medical school
b ☐ U.S. medical school
c ☐ U.S. jr. or community college
d ☐ Elementary or secondary school
e ☐ Foreign institution

Government
f ☐ Foreign government
g ☐ U.S. federal government
h ☐ U.S. state government
i ☐ U.S. local government

Private Sector
j ☐ Nonprofit organization
k ☐ Industry or business
l ☐ Self-employed

Other
m ☐ Other (specify) _____

B. Indicate what your **primary** and **secondary** work activities will be by entering "1" or "2" in the appropriate box.

0 ☐ Research and development
1 ☐ Teaching
2 ☐ Administration
3 ☐ Professional services to individuals
5 ☐ Other (specify) _____

C. In what field will you be working? Please enter number from **Specialties List** _____

Go to Item 24

24. Where do you intend to live/work/study after graduation? 0 ☐ in U.S. _____ (State) 1 ☐ not in U.S. _____ (Country)

_____ (Name of Organization, if known) _____ (City of Organization, if known)

25. What is the highest educational attainment of your mother and father? Please circle.

	Less than high school	High school graduate	Some college	Bachelor's	Master's	Professional	Doctorate
Father							
Mother							
Codes for office use	1	2	3	4	5	6	7

Signature _____ Date _____

If you would like a summary of the results of this survey, please check box ☐ (Available as funding permits.)

SPECIALTIES LIST

Instructions: The following field listing is to be used in responding to items 13, 15, 22A, and 23C. If a field marked with an asterisk (*) is chosen in item 13, please write in your field of specialization in the space provided.

AGRICULTURAL SCIENCES

000 Agricultural Economics
002 Agricultural Business & Mgmt.
005 Animal Breeding & Genetics
010 Animal Nutrition
012 Dairy Science
014 Poultry Science
055 Fisheries Sci. & Mgmt.
019 Animal Sciences, Other*
020 Agronomy & Crop Science
025 Plant Breeding & Genetics
030 Plant Path. (See also 120)
039 Plant Sciences, Other*
042 Food Distribution
043 Food Engineering
044 Food Sciences, Other*
046 Soil Chemistry/Microbiology
049 Soil Sciences, Other*
050 Horticulture Science
066 Forest Biology
070 Forest Management
072 Wood Sci. & Pulp/Paper Tech.
074 Conserv./Renewable Nat. Res.
079 Forestry & Related Sci., Other*
080 Wildlife/Range Management
098 Agricultural Sci., General
099 Agricultural Sci., Other*

BIOLOGICAL SCIENCES

100 Biochemistry
105 Biophysics
107 Biotechnology Research
110 Bacteriology
115 Plant Genetics
120 Plant Path. (See also 030)
125 Plant Physiology
129 Botany, Other*
130 Anatomy
133 Biometrics & Biostatistics
136 Cell Biology (See also 154)
139 Ecology
142 Developmental Bio./Embry.
145 Endocrinology
148 Entomology
151 Biological Immunology
154 Molecular Biology
157 Microbiology
160 Neuroscience
163 Nutritional Sciences
166 Parasitology
169 Toxicology
170 Genetics, Human & Animal
175 Pathology, Human & Animal (See also 120)
180 Pharmacology, Hum. & Anim.
185 Physiology, Human & Animal
189 Zoology, Other*
198 Biological Sciences, General
199 Biological Sciences, Other*

HEALTH SCIENCES

200 Speech-Lang. Path. & Audiol.
210 Environmental Health
212 Health Syst./Serv. Admin.
215 Public Health (See also 133)
220 Epidemiology
222 Exercise Physiology Science, Kinesiology
230 Nursing
240 Pharmacy
245 Rehabilitation/Therapeutic Services
250 Veterinary Medicine
298 Health Sciences, General
299 Health Sciences, Other*

ENGINEERING

300 Aerospace, Aeronautical & Astronautical
303 Agricultural
306 Bioengineering & Biomedical
309 Ceramic Sciences
312 Chemical
315 Civil
318 Communications
321 Computer
324 Electrical & Electronics
327 Engineering Mechanics
330 Engineering Physics
333 Engineering Science
336 Environmental Health Engin.
339 Industrial & Manufacturing
342 Materials Science
345 Mechanical
348 Metallurgical
351 Mining & Mineral
357 Nuclear
360 Ocean
363 Operations Research (See also 465, 930)
366 Petroleum
369 Polymer & Plastics
372 Systems
398 Engineering, General
399 Engineering, Other*

COMPUTER AND INFORMATION SCIENCES

400 Computer Science
410 Information Sci. & Systems*

MATHEMATICS

420 Applied Mathematics
425 Algebra
430 Analysis & Functional Analysis
435 Geometry
440 Logic (See also 785)
445 Number Theory
450 Mathematical Statistics
455 Topology
460 Computing Theory & Practice
465 Operations Research (See also 363, 930)
498 Mathematics, General
499 Mathematics, Other*

PHYSICAL SCIENCES

Astronomy

500 Astronomy
505 Astrophysics

Atmospheric Sciences and Meteorology

510 Atmospheric Physics & Chem.
512 Atmospheric Dynamics
514 Meteorology
518 Atmos. Sci./Meteorol., Gen.
519 Atmos. Sci./Meteorol., Other*

Chemistry

520 Analytical
522 Inorganic
524 Nuclear
526 Organic
528 Medicinal/Pharmaceutical
530 Physical
532 Polymer
534 Theoretical
538 Chemistry, General
539 Chemistry, Other* (See 100 Biochemistry)

Geological & Related Sciences

540 Geology
542 Geochemistry
544 Geophysics & Seismology
546 Paleontology
548 Mineralogy & Petrology
550 Stratigraphy & Sedimentation
552 Geomorphology & Glacial Geol.
558 Geolog. & Relat. Sci., Gen.
559 Geolog. & Relat. Sci., Other*

Physics

560 Acoustics
561 Chemical & Atomic/Molecular
564 Elementary Particle
566 Fluids
568 Nuclear
569 Optics
570 Plasma & High-Temperature
572 Polymer
574 Solid State & Low-Temperature
578 Physics, General
579 Physics, Other*

Miscellaneous Physical Sciences

580 Environmental Science
585 Hydrology & Water Resources
590 Oceanography
595 Marine Sciences
599 Misc. Physical Sci., Other*

PSYCHOLOGY

600 Clinical
603 Cognitive & Psycholinguistics
606 Comparative
609 Counseling
612 Developmental & Child
615 Experimental
618 Educational (See also 822)
621 Industrial & Organizational (See also 935)
624 Personality
627 Physiological/Psychobiology
630 Psychometrics
633 Quantitative
636 School (See also 825)
639 Social
648 Psychology, General
649 Psychology, Other*

SOCIAL SCIENCES

650 Anthropology
652 Area Studies
658 Criminology
662 Demography/Population Studies
666 Economics
668 Econometrics
670 Geography
672 Human Individ. & Family Devlpmt.
674 Int'l Relations/Affairs
678 Political Sci. & Government
682 Public Policy Analysis
686 Sociology
690 Statistics (See also 450)
694 Urban Affairs/Studies
698 Social Sciences, General
699 Social Sciences, Other*

HUMANITIES

History

700 History, American
705 History, European
710 History/Phil. of Sci. & Tech.
718 History, General
719 History, Other*

Letters

720 Classics
723 Comparative Literature
729 Linguistics
732 Literature, American
733 Literature, English
734 English Language
736 Speech & Rhetorical Studies
738 Letters, General
739 Letters, Other*

Foreign Languages and Literature

740 French
743 German
746 Italian
749 Spanish
752 Russian
755 Slavic (other than Russian)
758 Chinese
762 Japanese
765 Hebrew
768 Arabic
769 Other Lang. & Lit.*

Other Humanities

770 American Studies
773 Archeology
776 Art History/Crit./Conserv.
780 Music
785 Philosophy (See also 440)
790 Religion (See also 984)
795 Drama/Theater Arts
798 Humanities, General
799 Humanities, Other*

EDUCATION

800 Curriculum & Instruction
805 Educational Admin. & Supervision
807 Educational Leadership
810 Educ./Instruct. Media Design
815 Educ. St[illegible] Research Methods
820 Educ. Assess./Test./Meas.
822 Educational Psychology (See also 618)
825 School Psychology (See also 636)
830 Social/Phil. Found. of Educ.
835 Special Education
840 Counseling Educ./Couns. & Guidance Services
845 Higher Ed. Eval. & Research

Teacher Education

850 Pre-elem./Early Childhood
852 Elementary
856 Secondary
858 Adult & Continuing

Teaching Fields

860 Agricultural Education
861 Art Education
862 Business Education
864 English Education
866 Foreign Languages Education
868 Health Education
870 Home Economics Education
872 Tech. & Indust. Arts Education
874 Mathematics Education
876 Music Education
878 Nursing Education
880 Physical Education & Coaching
882 Reading Education
884 Science Education
885 Social Science Education
887 Technical Education
888 Trade & Industrial Education
889 Teacher Educ., Specific Acad. & Voc. Prog., Other*
898 Education, General
899 Education, Other*

PROFESSIONAL FIELDS

Business Management and Administrative Services

900 Accounting
905 Banking/Financ. Support Serv.
910 Business Admin. & Mgmt.
915 Business/Managerial Economics
916 International Business
917 Mgmt. Inf. Sys./Bus. Data Proc.
920 Marketing Mgmt. & Research
930 Operations Research (See also 363, 465)
935 Organiz. Behav. (See also 621)
938 Bus. Mgmt./Admin. Serv., Gen.
939 Bus. Mgmt./Admin. Serv., Other*

Communications

940 Communications Research
947 Mass Communications
957 Communication Theory
958 Communications, General
959 Communications, Other* (See also 736)

Other Professional Fields

960 Architec. Environ. Design
964 Home Economics
968 Law
972 Library Science
974 Parks/Rec./Leisure/Fitness
976 Public Administration
980 Social Work
984 Theol./Relig. Ed. (See also 790)
988 Professional Fields, General
989 Professional Fields, Other*

999 OTHER FIELDS*

The appendix tables present data according to the following field classifications. Appendix Tables A-1 and A-2 and Appendix Table B-1 display all subfields that are on the survey Specialties List. Appendix Tables A-4, A-5, and A-6 show data by seven broad fields only. Appendix Tables A-3 and A-7 include the additional field groupings indicated below.

SCIENCES

Physical Sciences (400-599)
- Physics and Astronomy (500-505, 560-579)
- Chemistry (520-539)
- Earth, Atmospheric, and Marine Sciences (510-519, 540-559, 580-599)
- Mathematics (420-499)
- Computer Sciences (400-410)

} Combined in Table A-7

Engineering (300-399)

Life Sciences (000-299)
- Biological Sciences (100-199)
  - Biochemistry (100)
  - Other Biological Sciences (105-199)
- Health Sciences (200-299)
- Agricultural Sciences (000-099)

Social Sciences (600-699)
- Psychology (600-649)
- Economics and Econometrics (666, 668)
- Anthropology and Sociology (650, 686)
- Political Science and International Relations (674, 678)
- Other Social Sciences (652-662, 670, 672, 682, 690-699)

} Combined in Table A-7

NONSCIENCES

Humanities (700-799)
- History (700-719)
- English and American Language and Literature (732-734)
- Foreign Languages and Literature (740-769)
- Other Humanities (720-729, 736-739, 770-799)

} Combined in Table A-7

Education (800-899)

Professional and Other Fields (900-999)
- Business and Management (900-939)
- Other Professional Fields (940-989)
- Other Fields (999)

NOTE: Doctorate recipients indicate their fields of speciality. Their choices may differ from departmental names.

TITLES OF RESEARCH DEGREES INCLUDED IN THE SURVEY OF EARNED DOCTORATES

DA/DAT	Doctor of Arts/Arts in Teaching
DArch	Doctor of Architecture
DAS	Doctor of Applied Science
DBA	Doctor of Business Administration
DChem	Doctor of Chemistry
DCJ	Doctor of Criminal Justice
DCL	Doctor of Comparative Law/Civil Law
DCrim	Doctor of Criminology
DED	Doctor of Environmental Design
DEng	Doctor of Engineering
DEnv	Doctor of Environment
DESc/ScDE	Doctor of Engineering Science
DF	Doctor of Forestry
DFA	Doctor of Fine Arts
DGS	Doctor of Geological Science
DHL	Doctor of Hebrew Literature/Letters
DHS	Doctor of Health and Safety
DHS	Doctor of Hebrew Studies
DIT	Doctor of Industrial Technology
DLS	Doctor of Library Science
DM	Doctor of Music
DMA	Doctor of Musical Arts
DME	Doctor of Musical Education
DMin/DM	Doctor of Ministry
DML	Doctor of Modern Languages
DMM	Doctor of Music Ministry
DMSc	Doctor of Medical Science
DNSc	Doctor of Nursing Science
DPA	Doctor of Public Administration
DPE	Doctor of Physical Education
DPH	Doctor of Public Health
DPS	Doctor of Professional Studies
DrDES	Doctor of Design
DRE	Doctor of Religious Education
DRec/DR	Doctor of Recreation
DSc/ScD	Doctor of Science
DScD	Doctor of Science in Dentistry
DScH	Doctor of Science and Hygiene
DScVM	Doctor of Science in Veterinary Medicine
DSM	Doctor of Sacred Music
DSSc	Doctor of Social Science
DSW	Doctor of Social Work
EdD	Doctor of Education
JCD	Doctor of Canon Law
JSD	Doctor of Juristic Science
LScD	Doctor of Science of Law
PhD	Doctor of Philosophy
RhD	Doctor of Rehabilitation
SJD	Doctor of Juridical Science
STD	Doctor of Sacred Theology
ThD	Doctor of Theology

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